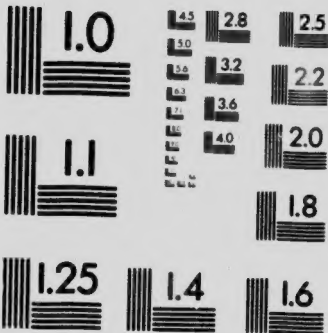


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DEPARTMENT OF AGRICULTURE
CENTRAL EXPERIMENTAL FARM
OTTAWA, CANADA

RESULTS OBTAINED IN 1904

FROM

TRIAL PLOTS OF
GRAIN, FODDER CORN, FIELD ROOTS
AND
POTATOES

BY

WILLIAM SAUNDERS, LL.D.
Director of Experimental Farms.

AND

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Experimentalist.

BULLETIN No. 48

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To the Honourable

The Minister of Agriculture.

SIR,—I herewith submit for your approval Bulletin No. 18 of the Experimental Farm series, which has been prepared by the Experimentalist, Dr. C. E. Saunders and myself. There are presented in this publication the results of a large number of experiments, which have been conducted at all the experimental farms in your Department during the season of 1904, with spring wheat, macaroni wheat, emmer and spelt, oats, barley, pease, Indian corn, turnips, mangels, carrots, sugar beets and potatoes, in plots of uniform size, and with the crops grown under uniform conditions. The average results are also given of the tests for a series of years of those varieties which have been long under trial.

These test plots are conducted with the object of gaining information as to the relative productiveness of the different sorts and their earliness in ripening. The returns show much variation in the weight of the crops grown and point to the importance of care in the choice of varieties of seed for sowing. It is hoped that these results giving the experience gained under some of the most important climatic variations found in the country, will prove useful to farmers in every part of Canada.

I have the honour to be,

Your obedient servant,

WM. SAUNDERS,

Director of Experimental Farms.

OTTAWA, December 27, 1904.

RESULTS OBTAINED

FROM TRIAL PLOTS OF

GRAIN, FODDER CORN, FIELD ROOTS AND POTATOES

By WILLIAM SAUNDERS, LL.D., F.R.S.C., F.L.S., F.C.S., &c.
Director of Experimental Farms.

AND CHAR. E. SAUNDERS, B.A., Ph.D., Experimentalist.

During the past ten years experiments have been conducted on uniform trial plots at each of the Dominion Experimental Farms for the purpose of gaining information as to the most productive and earliest ripening varieties of grain, fodder corn, field roots and potatoes. In arranging for the plots the same varieties have been sown at each of the farms, the seed being supplied at the outset from a common stock. In each case seed has been sown early, and, as a rule, all the different sorts of the same crop have been sown on the same day or at most within two or three days so as to give to all an even start. The land chosen each year for these plots has been as nearly uniform in character as could be found and before sowing has been brought into a good condition of tilth. In this bulletin which is the tenth of the series, considerable changes have been made in the manner of presenting the results of the experiments. Although in the previous issues attention has been called to the fact that the figures obtained in any one season are of much less significance than those which express the average of the returns for a series of years, nevertheless it has been felt that this important fact has not always received due consideration. It has therefore been decided to arrange the matter in such a form as to bring into prominence the average results and to relegate the figures obtained in the current year to an altogether subordinate place. In this way it is believed that the usefulness of the bulletin will be materially increased. Another change has also been considered necessary. Experience has shown that the results obtained from growing different varieties for a series of years on one farm and under uniform conditions

ANNUAL CROP BULLETIN.

cannot be safely compared together unless exactly the same years are used in computing all the averages. This is due of course to the variability of the seasons. A period of five years has therefore been adopted as the standard, and the varieties are placed in the tables in the order of their average yield for the last five years. Those which have only been grown for shorter periods are placed in a separate group. While a five-year period is undoubtedly rather short, it was considered undesirable to lengthen it, since by so doing all recently introduced varieties would have been kept too long from taking their place in the tables with the older sorts.

During the past season very dry weather prevailed in the Maritime Provinces during June and the greater part of July which considerably reduced the grain crops. The straw was short, but rains late in July brought the grain up to a fairly plump condition. The weather later in the season was favourable for roots. Better conditions for crop growing prevailed in Quebec and Ontario, but rust on the grain was general. Rust also was prevalent in some parts of Manitoba on wheat and oats, but in other respects the conditions were favourable. Pease gave a remarkably large return and the crop of roots was unusually heavy, while potatoes gave an enormous yield. At Indian Head all the cereal crops were good, but roots yielded less than usual; carrots gave a very small crop. At Agassiz, B. C., the crops were fairly satisfactory excepting roots which gave a small return.

The following lists include only those varieties which are being grown on all the Dominion Experimental Farms.

It frequently happens that a variety of grain is grown for one or two years at the Central Farm before being sent out to be tested at the branch farms. In all such cases, in order to secure uniformity in the tables in this bulletin, the yields at the Central Farm are only recorded for those years in which the varieties were grown on all the farms.

In computing the average for these tables the same five years have been used in each case, except in a few instances where the omission or failure of one of the plots made a blank in the records for that year. These instances are marked with a cross † and the true position in the tables of the varieties so marked is on this account to be regarded as somewhat uncertain.

* Cross-bred varieties produced on the Experimental Farms are marked with an asterisk.

SPRING WHEAT

Thirty-six varieties of spring wheat (exclusive of the macaroni wheats) have been grown on the uniform test plots at all the Dominion Experimental Farms during the past season. The size of the plots was one-fortieth of an acre at Ottawa, Ont., Nappan, N. S. and Agassiz, B. C.; while at Brandon, Man., and Indian Head, N. W. T., the plots were one-twentieth of an acre. The seed was sown at the rate of one and one-half bushels per acre. The dates of sowing were as follows:—At Ottawa, April 27 and May 2; Nappan, May 12; Brandon, May 4; Indian Head, April 29; and at Agassiz, April 25.

In Canada the bushel of wheat is 60 lbs.

SPRING WHEAT—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Preston	35 33	115	29 20	15	Hungarian	33 14	117	21 2
2	Red Fife	35 9	119	30 57	16	Pringle's Champlain	34 5	116	25 17
3	Advance	34 54	115	29 41	17	Percy	32 35	115	23 29
4	Monarch	34 44	119	30 34	18	Colorado	32 29	116	24 5
5	White Fife	34 39	119	29 44	19	Plumper	32 21	115	24 34
6	Huron	34 37	117	25 57	20	Dawn	32 17	114	25 15
7	White Russian	34 30	120	30 14	21	Harrison Bearded	32 15	118	23 57
8	Rio Grande	34 8	118	23 53	22	Wellman's Fife	32 15	118	23 2
9	Wellman's Fife	34 2	119	28 10	23	Byron	32 4	114	28 45
10	Clyde	33 56	117	27 24	24	Crawford	31 17	113	26 14
11	Laurel	33 54	120	27 30	25	Countess	31 1	115	27 13
12	Admiral	33 50	117	29 34	26	Early Riga	30 24	109	24 57
13	Stanley	33 31	116	27 25	27	Fraser	29 59	111	22 34
14	Red Fern	33 26	118	26 5					
	Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
	Power's Fife = Minn. 144 (4 years).....	33 55	120	30 2		Hastings * (4 years).....	32 6	116	25 10
	Benton * (4 years).....	33 26	116	30 19		Australian No. 1904 years	31 34	115	28 14
	Chester * (4 years).....	32 59	116	29 33		Australian No. 944 years	31 4	118	28 36
	McKendry's Fife = Minn. 181 (4 years).....	32 36	120	25 10		Haynes Blue Stem = Minn. 160 (4 years).....	30 14	111	25 6
	Minnesota No. 163 (4 years).....	32 27	120	27 22					

The average crop of the thirty-six varieties of spring wheat tested on all the Experimental Farms in 1904 was 28 bus. 2 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Preston	31 24	107	21 20	15	Hungarian	27 22	110	14
2	Huron	30 20	110	12 26	16	Monarch	27 18	114	18 40
3	Harrison Bearded	29 44	110	24	17	Wellman's Fife	27 18	113	14 29
4	Pringle's Champlain	29 16	108	19	18	Weldon	26 52	110	26 20
5	Advance	29	109	23 40	19	Colorado	26 44	107	19 40
6	White Fife	28 34	112	18	20	Rio Grande	26 34	112	16 20
7	Red Fern	28 26	110	22 19	21	Crawford	26 20	104	20 20
8	Clyde	28 14	110	21	22	Percy	26 20	107	18
9	Red Fife	28 6	113	15	23	Dawn	25 12	107	18 20
10	Plumper	28	106	23	24	Countess	24 48	106	19 40
11	Byron	27 54	107	27 20	25	Stanley	24	107	16 40
12	White Russian	27 54	113	17	26	Fraser	23 56	101	16 40
13	Admiral	27 42	110	25	27	Early Riga	29 52	101	17
14	Laurel	27 34	112	21 20					

SPRING WHEAT—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.—*Con.*

Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904.
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
Hastings * (4 years).....	28 52	107	25 20	Chester * (4 years).....	25 17	108	24 40
McKendry's Fife (Minn. 181) (4 years).....	28 15	112	16 40	Haynes' Blue Stem = Minn 169 (4 years).....	24 15	114	12 40
Benton (4 years) *.....	28 10	110	23 40	Power's Fife = Minn. 149 (4 years).....	24 ..	113	16 20
Australian No. 19 (4 years).....	27 2	113	16 40	Australian No. 9 (4 years)	19 2	109	11 20
Minnesota No. 163 (4 years).....	26 15	113	15 40				

The average crop of the thirty-six varieties of spring wheat tested on the Central Experimental Farm in 1904 was 19 bus. 8 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Rio Grande.....	37 20	113	27 ..	15	Admiral *.....	33 20	114	26 40
2	White Fife.....	35 16	116	27 20	16	Red Fern.....	33 20	113	22 40
3	Red Fife.....	35 28	114	28 ..	17	Plumper *.....	32 44	113	24 20
4	Laurel *.....	35 16	116	22 20	18	Crawford *.....	32 24	113	24 ..
5	Byron *.....	35 12	113	28 40	19	Pringle's Champlain..	32 8	112	22 ..
6	Advance *.....	35 8	112	21 40	20	Huron *.....	32 4	113	24 ..
7	White Russian.....	34 56	115	26 ..	21	Weldon *.....	32 ..	115	20 40
8	Clyde *.....	34 48	114	21 20	22	Herisson Bearded. ..	31 52	114	23 20
9	Hungarian.....	34 40	113	21 20	23	Dawn *.....	31 12	113	21 40
10	Preston *.....	34 40	113	26 ..	24	Percy *.....	31 8	113	18 20
11	Wellman's Fife.....	34 32	116	25 20	25	Stanley *.....	30 44	114	20 20
12	Colorado.....	34 24	112	24 40	26	Countess *.....	28 40	114	23 20
13	Early Riga *.....	33 48	108	24 20	27	Fraser *.....	24 40	113	20 ..
14	Monarch.....	33 48	115	24 20					

Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield in 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield in 1904.
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
Chester * (4 years).....	32 35	115	23 ..	Benton * (4 years).....	29 ..	116	25 20
Power's Fife (4 years) ..	30 10	117	22 40	Australian No. 9 (4 years)	28 20	119	26 ..
McKendry's Fife (4 years)	29 30	118	20 ..	Haynes' Blue Stem (4 years).....	26 25	118	21 40
Hastings * (4 years)....	29 10	116	24 ..	Australian No. 19 (4 years)	24 5	119	21 ..
Minnesota No. 163 (4 years)	29 10	118	20 ..				

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Nappan in 1904 was 23 bus. 31 lbs. per acre.

SPRING WHEAT—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Monarch	34 4	119	33 40	15	Fraser *	30 20	110	31 ..
2	Dawn *	34 ..	113	29 ..	16	Countess *	30 18	117	25 20
3	White Fife	33 32	120	31 20	17	Preston *	30 16	115	33 ..
4	Advance *	33 30	114	31 ..	18	Pringle's Champlain..	30 16	115	31 20
5	Red Fife	33 26	120	36 40	19	Hungarian	29 44	117	29 20
6	White Russian	33 16	120	26 40	20	Percy *	29 42	112	26 20
7	Admiral *	33 8	117	29 40	21	Rio Grande	29 33	117	19 40
8	Laurel *	32 36	120	25 20	22	Weldon *	29 32	117	29 20
9	Huron *	32 28	115	31 20	23	Red Fern	28 50	116	23 20
10	Wellman's Fife	32 18	118	26 20	24	Herisson Bearded	28 50	115	22 20
11	Clyde *	31 52	117	26 ..	25	Early Riga *	28 40	108	28 ..
12	Crawford *	31 48	114	36 ..	26	Plumper *	28 28	116	23 20
13	Stanley *	31 32	116	26 20	27	Colorado *	27 8	115	22 ..
14	Byron *	30 24	114	27 40					
	Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
	Australian No. 9 (4 years)	32 45	117	35 40		Haynes' Blue Stem (4 years)	27 15	120	27 ..
	Benton * (4 years)	32 ..	114	31 20		Australian No. 19 (4 years)	26 ..	121	36 ..
	Pow's Fife (4 years)	31 52	120	35		Hastings * (4 years)	25 55	116	27 ..
	Chester * (4 years)	30 10	117	34		McKendry's Fife (4 years)	22 7	119	16 20
	Minnesota No. 163 (4 years)	27 40	110	25 40					

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Brandon in 1904 was 28 bus. 32 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Preston *	44 26	125	39 40	15	White Russian	39 52	129	48 50
2	Stanley *	43 51	121	42 25	16	Admiral *	39 48	123	38 10
3	Huron *	43 21	123	36 5	17	Clyde *	39 34	124	41 50
4	Red Fern	42 19	128	38 45	18	Colorado	39 22	125	31 5
5	Monarch	42 36	127	50 20	19	White Fife	39 1	128	38 40
6	Percy *	42 23	124	41 5	20	Herisson Bearded	38 27	129	28 55
7	Weldon *	42 12	126	40 20	21	Dawn *	38 21	121	31 25
8	Rio Grande	41 55	129	32 45	22	Laurel *	38 6	120	42 50
9	Wellman's Fife	41 52	129	42 50	23	Plumper *	36 32	122	27 50
10	Red Fife	41 31	129	43 5	24	Fraser *	35 42	118	27 35
11	Pringle's Champlain	41 5	127	31 25	25	Crawford *	35 35	119	30 ..
12	Advance *	40 57	128	49 45	26	Early Riga *	34 55	116	35 45
13	Hungarian	40 38	127	29 50	27	Byron *	34 25	119	27 40
14	Countess *	40 19	121	40 5					

SPRING WHEAT—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904.
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
Power's Fife (4 years)....	44 27	129	48 40	Chester * (4 years).....	39 11	124	41 10
McKendry's Fife (4 years)...	42 9	130	45 30	Hastings * (4 years).....	38 52	124	32 30
Australian No. 19 (4 years).....	41 51	129	44 20	Benton * (4 years).....	38 26	123	42 15
Minnesota No. 163 (4 years).....	41 30	130	45 20	Australian No. 9 (4 years)	38 5	127	41 40
				Haynes' Blue Stem (4 years).....	37 59	131	40 ..

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Indian Head in 1904 was 38 bush. 42 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.	Average days matur- ing for five years.	Yield in 1904.	Number.	Varieties tested, for five years.	Average yield for five years.	Average days matur- ing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Stanley *.....	37 26	118	31 20	15	Perry *.....	35 3	118	28 40
2	Red Fife.....	37 15	120	32 ..	16	Huron *.....	34 50	122	26 ..
3	Preston *.....	36 59	116	26 40	17	Wellman's Fife.....	34 10	121	32 ..
4	Colorado.....	36 34	119	22 ..	18	Early Riser *.....	34 3	112	18 ..
5	White Russian.....	36 34	122	22 40	19	Hungarian.....	33 44	119	25 40
6	Laurel *.....	36 ..	121	27 20	20	Fraser *.....	33 37	114	17 20
7	Plumper *.....	35 59	118	24 20	21	Crawford *.....	33 36	114	23 20
8	Monarch.....	35 54	120	25 50	22	Red Fern.....	33 15	121	22 50
9	White Fife.....	35 53	119	33 20	23	Pringle's Chan plain.....	32 48	120	22 40
10	Advance *.....	35 53	114	22 20	24	Dawn *.....	32 38	117	20 40
11	Countess *.....	35 31	117	27 40	25	Byron *.....	32 25	115	27 ..
12	Rio Grande.....	35 15	121	23 40	26	Harrison Bearded.....	32 21	121	22 ..
13	Clyde.....	35 14	119	26 50	27	Weldon *.....	30 30	121	26 30
14	Admiral *.....	35 10	120	30 ..					

Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904.
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
McKendry's Fife (4 years).....	40 57	122	27 20	Hastings * (4 years).....	37 39	114	18 40
Benton * (4 years).....	39 32	119	29 ..	Chester * (4 years).....	37 20	117	25 20
Power's Fife (4 years).....	39 7	121	27 30	Australian No. 9 (4 years).....	37 10	119	27 10
Australian No. 19 (4 years)	38 39	117	21 ..	Haynes' Blue Stem (4 years).....	36 57	121	28 20
Minnesota No. 163 (4 years).....	37 40	121	30 10				

The average crop of the thirty-six varieties of spring wheat tested on the Experimental Farm at Agassiz in 1904 was 26 bus. 2 lbs. per acre.

SPRING WHEAT—Continued.

NOTE ON THE MILLING VALUE OF CERTAIN VARIETIES OF WHEAT.

The following varieties of spring wheat which have proved very productive at one or more of the experimental farms do not give flour of the best quality for bread making and should not, therefore, be grown for ordinary milling purposes :—

Rio Grande.
Herisson Bearded.
Colorado.

MACARONI WHEAT.

It has been thought best to publish the results of the tests of varieties of macaroni wheat in a separate table, rather than in conjunction with the ordinary sorts of spring wheat. While it is possible to make good flour from some kinds of macaroni wheat, such flour is generally unpopular. Furthermore the peculiar character of the kernels necessitates the use of somewhat different methods in the milling of these kinds of wheat. They are naturally, therefore, looked upon with disfavour by millers.

Farmers who grow any of these varieties should exercise great care to prevent them from becoming mixed with the standard sorts used for flour making.

Four varieties of macaroni wheat have been grown on the uniform test plots during the past season. The plots were of the same size as those sown with ordinary spring wheat and the seed was used at the rate of one and three-quarter bushels per acre. The dates of sowing were as follows:—At Ottawa, Ont., May 2; Nappan, N. S., May 12; Brandon, Man., May 4; Indian Head, N. W. T., April 29; and at Agassiz, B. C., April 25th.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing.	Average yield for 1904.		Varieties tested for less than five years.	Average days maturing.		Average yield for 1904.		
		Bu. Lbs.	Days.		Bu. Lbs.	Days.		Bu. Lbs.	Days.			
1	Roumanian.....	39	10	121	34	26	Yellow Gharinovka (1 yr.)	..	..	116	31	45
2	Goose.....	37	32	119	35	25	Mahmoudi (1 year).....	..	..	116	32	2

The average crop of the four varieties of macaroni wheat tested on all the Experimental Farms in 1904 was 32 bus. 54 lbs. per acre.

MACARONI WHEAT--Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904	Varieties tested for less than five years.		Days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Roumanian.....	32 38	113	39 40	Yellow Gharnovka (1 yr)	.. ..	105	31 20
2	Goose	27 41	111	35 20	Mahmoudi (1 year)...	.. ..	105	26 ..

The average crop of the four varieties of macaroni wheat tested on the Central Experimental Farm in 1904 was 33 bus. 5 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Varieties tested for less than five years.		Days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Roumanian.....	34 24	118	12 20	Yellow Gharnovka (1 yr)	.. ..	104	14 ..
2	Goose	30 40	116	16 ..	Mahmoudi (1 year).....	.. ..	104	8 ..

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Nappan in 1904 was 12 bus. 50 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Varieties tested for less than five years.		Days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Goose	47 20	121	53 26	Yellow Gharnovka (1 yr)	.. ..	123	45 ..
2	Roumanian	45 16	121	45 20	Mahmoudi (1 year).....	.. ..	123	44 40

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Brandon in 1904 was 47 bus. 5 lbs. per acre.

MACARONI WHEAT—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT INDIAN HEAD, N. W. T.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Varieties tested for less than five years.		Days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Roumanian.	45 30	129	47 50	Mahmoudi (1 year).....	.. ..	127	43 30
2	Goose.	45 7	128	43 5	Yellow Gharovka (1 yr) .. ..	.. ..	129	41 45

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Indian Head in 1904 was 44 bushels 2 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM AT AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Varieties tested for less than five years.		Days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
1	Roumanian.	38 —	122	26 —	Mahmoudi (1 year).....	.. ..	114	23 ..
2	Goose.	36 50	120	29 20	Yellow Gharovka (1 yr) .. ..	.. ..	116	26 40

The average crop of the four varieties of macaroni wheat tested on the Experimental Farm at Agassiz in 1904 was 27 bushels 30 lbs. per acre.

EMMER AND SPELT.

Two varieties of emmer and two of spelt were sown in the uniform test plots this season. In previous years only Common Emmer (incorrectly called 'Speltz') was grown; so that for purposes of comparison the only figures available are those of the present season. The varieties are therefore arranged in the tables in the order of their yield for this year.

The plots were of the same size as those of spring wheat. The dates of sowing were as follows:—At Ottawa, Ont., May 3; Nappan, N.S., May 12; Brandon, Man., May 4; Indian Head, N.W.T., May 14; and at Agassiz, B.C., April 25.

The yield is expressed in pounds per acre, the grain being, of course, weighed with the husk adhering

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	—	Average yield for 1904.	Average days maturing.	Number.	—	Average Yield for 1904.	Average Days maturing.
		Lbs.				Lbs.	
1	Common Emmer	2448	113	3	Red Spelt.	1808	118
2	Red Emmer.	1980	118	4	White Spelt.	1362	117

EMMER AND SPELT—Continued

YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1 Red Emmer.....		2760	108	3 Common Emmer.....		2040	101
2 Red Spelt.....		2340	109	4 White Spelt.....		1740	104

YIELD ON THE EXPERIMENTAL FARM AT NAPPAN, N.S.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1 Red Spelt.....		1400	110	3 Common Emmer.....		1040	102
2 White Spelt.....		1120	110	4 Red Emmer.....		1000	110

YIELD ON THE EXPERIMENTAL FARM AT BRANDON, MAN.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1 Common Emmer.....		4140	128	3 Red Spelt.....		2000	131
2 Red Emmer.....		2780	133	4 White Spelt.....		1210	129

YIELD ON THE EXPERIMENTAL FARM AT INDIAN HEAD, N.W.T.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1 Common Emmer.....		3100	118	3 Red Emmer.....		1520	121
2 Red Spelt.....		1720	123	4 White Spelt.....		1120	123

YIELD ON THE EXPERIMENTAL FARM AT AGASSIZ, B.C.

Number.	—	Yield for 1904.	Days maturing.	Number.	—	Yield for 1904.	Days maturing.
		Lbs.				Lbs.	
1 Common Emmer.....		1920	117	3 Red Spelt.....		1680	119
2 Red Emmer.....		1840	117	4 White Spelt.....		1590	117

OATS—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.			
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.			
1	White Giant.....	69	2	108	71	6	13 Improved American..	62	8	108	53	18
2	Menonite.....	68	2	107	79	14	14 American Beauty....	61	14	106	65	10
3	Holstein Prolific....	67	19	108	73	18	15 Buckbee's Illinois....	61	19	107	64	4
4	Lincoln.....	67	10	107	98	8	16 Danish Island.....	59	2	108	57	2
5	Banner.....	66	32	107	69	14	17 Joannette.....	58	22	111	41	6
6	Columbus.....	66	10	108	...	...	18 Thousand Dollar.....	58	16	106	70	...
7	American Triumph....	65	22	109	80	20	19 Early Golden Prolific..	58	8	107	72	12
8	Wide Awake.....	64	30	108	89	14	20 Bavarian.....	57	...	110	...	...
9	Golden Beauty.....	64	4	108	71	6	21 Improved Ligowo.....	56	24	106	42	12
10	Abundance.....	63	26	109	71	6	22 Siberian.....	53	30	110	31	6
11	Golden Giant.....	63	6	111	67	2	23 Golden Tartarian.....	53	2	113	31	26
12	Black Beauty.....	63	2	107	53	18						

Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield in 1904.				
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.				
Sensation (4 years).....	68	33	108	77	2	Swedish Select † (2 yrs.)..	70	10	111	...	...
Irish Victor (4 years)....	62	2	109	70	...	Kendal White * (2 yrs.)...	68	24	109	70	20
Pioneer (4 years).....	55	5	108	76	16	Kendal Black * (2 yrs.)...	65	...	109	72	12
Goldfinder (4 years)....	54	24	110	54	4	Golden Fleece * (2 yrs.)...	64	12	111	...	...
Tartar King (4 years)....	48	23	105	45	10	Milford Black † (2 yrs.)...	60	30	109	70	20
Waverley (4 years).....	47	4	109	25	10	Olive White * (2 yrs.)....	57	2	109	53	18
Scotch Potato (4 years)...	46	33	111	58	28	Pense White * (2 yrs.)....	55	10	108	46	16
Twentieth Century (3 years).....	79	7	110	93	18	Pense Black * (2 yrs.)....	55	10	109	69	14
Milford White * (2 years)	72	12	107	85	10	Olive Black * (2 yrs.)....	54	4	112	47	2
						Storm King (1 yr.).....	...	...	105	20	40

The average crop of the forty-two varieties of oats tested on the Central Experimental Farm in 1904 was 62 bush. 31 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.		
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.		
1	Lincoln.....	81	14	111	61	6	13 Wide Awake.....	76	109	61	6
2	Siberian.....	80	32	110	69	14	14 Improved Ligowo....	75	108	56	16
3	Thousand Dollar.....	78	32	108	57	2	15 Golden Beauty.....	74	110	63	18
4	Danish Island.....	78	20	110	56	16	16 Improved American..	74	110	60	..
5	Joannette.....	78	12	105	56	16	17 Abundance.....	74	108	58	28
6	Holst in Prolific.....	78	8	109	61	26	18 Golden Giant.....	74	114	60	20
7	Bavarian.....	78	20	109	56	16	19 American Beauty....	73	109	56	16
8	Early Golden Prolific..	77	30	109	55	10	20 Menonite.....	73	111	45	30
9	Banner.....	77	18	107	64	4	21 Buckbee's Illinois....	71	110	49	14
10	White Giant.....	76	32	113	60	..	22 Columbus.....	68	111	65	30
11	Black Beauty.....	76	32	103	51	26	23 American Triumph....	68	113	44	24
12	Golden Tartarian.....	76	8	117	63	18					

OATS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.—Cont.

Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield for 1904
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
Sensation (4 years)....	79 14	108	60 ..	Golden Fleece (2 yrs.)....	75 10	107	68 8
Goldfinder (4 years)....	77 12	114	61 6	Olive Black * (2 yrs.)....	63 8	107	44 8
Pioneer (4 years)....	74 14	108	78 28	Milford Black * (2 yrs.)....	67 22	106	55 10
Waverley (4 years)....	70 5	106	60 20	Kendal White * (2 yrs.)....	65 10	106	55 10
Tartar King (4 years)....	69 24	106	59 29	Pense Black * (2 yrs.)....	65 10	107	49 14
Scotch Potato (4 years)....	66 26	111	54 4	Kendal Black * (2 yrs.)....	64 4	106	52 32
Irish Victor (4 years)....	65 20	109	62 12	Milford White * (2 yrs.)....	60 ..	106	45 30
Twentieth Century (3 years)....	62 28	109	59 14	Pense White * (2 yrs.)....	58 24	107	44 8
Swedish Select (2 years)....	60 ..	106	72 32	Olive White * (2 yrs.)....	58 8	107	24 24
				Storm King (1 yr.)....	..	99	50 20

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Nappan in 1904 was 57 bus. 1 lb. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON.

Number.	Varieties tested for five years.	Average yield for five years.	Average days matur- ing.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Yield in 1904
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Bu. Lbs.
1 Buckbee's Illinois....		101 2	108	121 26	13 Hol-tein Prolific....	92 24	100	100
2 Wide Awake.....		99 16	106	125 30	14 Columba....	92 8	117	117
3 Abundance.....		98 26	106	130 20	15 Golden Giant....	91 ..	112	112
4 Siberian.....		96 28	106	127 22	16 Golden Tartarian....	90 20	111	111
5 Danish Island....		96 26	106	132 12	17 White Giant....	90 10	105	105
6 Banner.....		96 10	105	131 6	18 Bavarian....	90 10	105	105
7 Lincoln.....		96 4	106	127 22	19 Thousand Dollar....	86 18	104	104
8 Early Golden Prolific.		95 29	106	127 2	20 Monmouth....	85 20	102	102
9 American Triumph....		95 ..	106	125 10	21 Jovette....	81 ..	101	101
10 Golden Beauty.....		94 28	106	132 32	22 Black Beauty.....	80 18	101	101
11 Improved American....		94 ..	104	134 4	23 Improved Lagowo ‡....	76 6	103	103
12 American Beauty....		93 10	105	117 22				

Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield in 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days matur- ing.	Yield in 1904.
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
Waverley (4 years)....	92 25	106	122 32	Kendal White * (2 years)....	100 ..	110	106
Irish Victor (4 years)....	91 18	105	112 32	Olive White * (2 years)....	98 18	114	103 18
Goldfinder (4 years)....	80 22	110	111 26	Olive Black * (2 years)....	95 30	114	103 18
Scotch Potato (4 years)....	79 14	107	119 14	Pense Black * (2 years)....	95 20	114	101 6
Sensation (4 years)....	78 33	105	79 14	Milford Black * (2 years)....	95 15	114	103 18
Tartar King (4 years)....	76 13	104	105 30	Kendal Black * (2 years)....	93 18	114	104 24
Pioneer (4 years)....	75 5	106	107 2	Milford White * (2 years)....	91 16	113	105 10
Twentieth Century (2 years)....	106 1	104	107 22	Pense White * (2 years)....	90 20	113	101 6
Golden Fleece (2 years)....	102 2	106	120 ..	Swedish Select ‡ (2 years)....	74 4	105	54 4
				Storm King (1 year)....	..	113	90

‡ A considerable part of the crop was destroyed by birds.

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Brandon in 1904 was 110 bushels 33 lbs. per acre.

OATS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N. W. T.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Banner.....	114 28	111	123 28	13	Lincoln.....	96 30	110	75 25
2	Abundance.....	108 8	110	93 23	14	Golden Tartarian.....	96 ..	116	101 26
3	Danish Island.....	104 22	110	98 28	15	Early Golden Prolific.....	95 23	111	78 28
4	Golden Beauty.....	103 31	110	93 3	16	Golden Giant.....	95 4	116	93 28
5	Wide Awake.....	101 29	109	75 5	17	Buckbee's Illinois.....	94 7	109	71 6
6	Improved American.....	101 5	111	76 1	18	Black Beauty.....	92 32	111	75 30
7	Holstein Prolific.....	100 25	110	78 13	19	Mennonite.....	92 18	109	71 26
8	American Beauty.....	100 1	111	86 11	20	Siberian.....	92 7	116	82 12
9	American Triumph.....	100 ..	111	95 30	21	Joanette.....	91 18	115	79 14
10	Bavarian.....	99 28	111	83 18	22	Improved Ligowo.....	91 3	108	80 15
11	Columbus.....	99 5	112	94 19	23	White Giant.....	86 31	109	97 2
12	Thousand Dollar.....	97 17	108	73 3					
	Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield for 1904.		Varieties tested for less than five years.	Average yield for less than five years.	Average days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
	Goldfinch (4 years).....	101 16	115	97 22		Milford White* (2 years).....	105 ..	119	90 20
	Irish (4 years).....	97 2	113	102 17		Pense Black* (2 years).....	103 27	123	92 21
	Waverly (4 years).....	95 24	112	101 21		Swedish Select (2 years).....	103 23	117	80 30
	Sennar (4 years).....	90 24	110	80 5		Golden Fleece (2 years).....	101 18	122	82 7
	Pioneer (4 years).....	88 20	112	98 18		Pense White* (2 years).....	101 6	120	87 2
	Tartar King (4 years).....	87 33	110	69 ..		Kendal Black (2 years).....	100 20	122	84 4
	Scotch Potato (4 years).....	84 23	113	87 22		Twentieth Century (2 years).....	100 ..	116	89 14
	Kendal White* (2 years).....	112 32	119	98 28		Olive White* (2 years).....	89 20	116	69 26
	Milford Black* (2 years).....	108 1	123	101 13		Storm King (1 year).....	.. ..	113	93 19
	Olive Black* (2 years).....	105 29	123	89 32					

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Indian Head in 1904 was 87 bush, 23 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Golden Tartarian.....	69 32	120	52 12	13	Golden Giant.....	64 11	119	52 22
2	Black Beauty.....	69 16	115	55 28	14	American Triumph.....	63 30	118	55 20
3	Lincoln.....	67 12	118	57 22	15	Bavarian.....	63 2	117	56 6
4	Holstein Prolific.....	67 4	118	60 20	16	Siberian.....	62 30	119	55 30
5	Danish Island.....	66 39	119	61 16	17	Wide Awake.....	61 14	119	54 24
6	Improved Ligowo.....	66 ..	118	58 18	18	Thousand Dollar.....	60 20	116	61 6
7	Buckbee's Illinois.....	65 8	120	58 8	19	Golden Beauty.....	60 15	119	50 ..
8	Abundance.....	65 4	119	56 26	20	Mennonite.....	59 15	114	50 25
9	White Giant.....	65 2	118	61 16	21	Improved American.....	59 8	117	57 32
10	Columbus.....	65 2	116	50 19	22	American Beauty.....	58 32	119	50 30
11	Banner.....	64 28	116	59 4	23	Joanette.....	58 18	118	54 4
12	Early Golden Prolific.....	64 12	116	50 20					

OATS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.—Cont.

Varieties tested for less than five years.	Average yield for less than five years.	Average days matu- ring.	Yield for 1904.	Varieties tested for less than five years.	Average yield for less than five years.	Average days matu- ring.	Yield for 1904.
	Bu. Lbs.	Days.	Bu. Lbs.		Bu. Lbs.	Days.	Bu. Lbs.
Tartar King (4 years)...	62 8	116	57 22	Milford White * (2 years)...	67 32	117	53 18
Waverley (1 year).....	68 15	116	57 2	Kendal White * (2 years)...	66 16	118	59 24
Pioneer (4 years).....	66 21	114	56 16	Olive White * (2 years)...	65 10	117	56 16
Irish Victor (4 years)....	66 6	118	60 10	Olive Black * (2 years)...	61 11	118	58 28
Goldfinder (4 years)....	63 ..	119	48 28	Pense White * (2 years)...	60 30	116	55 16
Scotch Potato (4 years)...	62 12	119	51 26	Kendal Black * (2 years)...	60 5	119	56 26
Sensation (4 years).....	62 4	116	47 22	Pense Black * (2 years)...	59 32	121	59 14
Twentieth Century (3 years).....	57 8	116	54 14	Swedish Select (2 years)...	55 32	115	52 27
Golden Fleece (2 years)...	60 4	110	67 2	Milford Black * (2 years)...	52 17	116	49 24
				Storm King (1 year).....	.. ..	114	52 32

The average crop of the forty-two varieties of oats tested on the Experimental Farm at Agassiz in 1904 was 55 bus 14 lbs. per acre.

SIX ROWED BARLEY.

During the season of 1904, twenty varieties of six-rowed barley have been under test. The plots were of the same size at those sown with spring wheat. The seed was used in the proportion of two bushels to the acre; and the dates of sowing were as follows:—At Ottawa, Ont, May 5; Nappan, N.S., May, 21; Brandon, Man., May 17; Indian Head, N. W. T. May 14; and at Agassiz B. C. April 23.

In Canada the bushel of barley is 48 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Mensury.....	54 44	96	50 46	11	Odobruch.....	51 2	95	47 45
2	Odessa.....	54 10	95	52 38	12	Summit.....	50 47	99	50 30
3	Common.....	52 9	95	50 8	13	Mansfield.....	50 14	98	42 50
4	Yale.....	51 42	99	53 30	14	Empire.....	50 8	98	51 21
5	Claude.....	51 38	98	53 32	15	Argyle.....	49 26	97	50 32
6	Trooper.....	51 33	98	47 45	16	Rennie's Improved.....	49 3	95	47 5
7	Nugent.....	51 30	99	50 40	17	Baxter.....	48 57	95	50 20
8	Brema.....	51 29	99	54 6	18	Albert.....	48 22	96	43 4
9	Royal.....	51 15	96	46 44	19	Garfield.....	47 26	98	48 9
10	Stella.....	51 8	99	55 14	20	Champion (beardless).....	41 18	93	45 17

The average crop of the twenty varieties of six-rowed barley tested on all the Experimental Farms in 1904 was 49 bus. 22 lbs. per acre.

SIX ROWED BARLEY—*Continued.*

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Stella *	51 10	95	58 16	11	Royal *	42 44	96	34 8
2	Odessa.	49 38	95	43 16	12	Albert *	42 10	96	36 12
3	Mensury.	48 41	94	42 24	13	Oderbruch.	42 6	96	36 32
4	Nugent *	47 10	96	50 ..	14	Argyle *	41 30	97	43 16
5	Yale *	46 14	97	45 20	15	Rennie's Improved.	41 18	94	40 ..
6	Summit *	44 46	95	43 16	16	Claude *	41 2	97	43 16
7	Common	44 42	93	43 36	17	Empire *	39 46	96	41 12
8	Garfield *	43 30	96	40 40	18	Baxter *	38 30	94	46 32
9	Trooper *	43 22	94	27 4	19	Champion †	34 44	94	22 24
10	Brome †	43 18	96	37 24	20	Mansfield †	33 40	97	17 44

The average crop of the twenty varieties of six-rowed barley tested on the Central Experimental Farm in 1904 was 39 bus. 34 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Common	57 24	91	43 16	11	Stella *	49 32	98	45 40
2	Mensury.	55 8	94	49 8	12	Nugent *	49 8	96	41 32
3	Oderbruch	53 40	91	45 40	13	Rennie's Improved.	48 16	91	45 ..
4	Trooper *	53 32	92	50 ..	14	Brome *	48 6	97	44 8
5	Odessa	53 24	91	43 16	15	Mansfield *	48 ..	96	37 24
6	Royal *	53 ..	93	49 8	16	Garfield *	48 ..	93	42 24
7	Baxter *	51 32	91	39 8	17	Champion	46 16	90	38 16
8	Yale *	51 24	96	47 24	18	Argyle *	46 8	92	35 40
9	Albert *	50 40	91	40 4	19	Summit *	44 24	96	44 8
10	Empire *	49 40	95	45 ..	20	Claude *	44 8	93	41 32

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Nappan in 1904 was 43 bus. 22 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Mansfield *	58 18	91	52 24	11	Odessa.	51 14	91	57 24
2	Yale *	58 13	93	62 24	12	Stella *	50 40	94	53 16
3	Summit *	56 14	94	52 44	13	Oderbruch.	50 24	90	41 32
4	Claude *	54 13	94	55 40	14	Common	50 24	89	42 44
5	Argyle *	54 4	92	54 28	15	Baxter	49 42	90	53 16
6	Mensury.	53 44	92	47 4	16	Royal *	49 30	90	46 12
7	Brome *	53 36	94	66 32	17	Albert *	49 23	89	46 32
8	Empire *	53 20	94	58 36	18	Rennie's Improved.	48 24	89	43 16
9	Nugent *	53 14	94	47 24	19	Garfield *	47 12	92	52 24
10	Trooper *	53 8	95	54 28	20	Champion	34 ..	88	21 32

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Brandon in 1904 was 50 bus. 20 lbs. per acre.

SIX ROWED BARLEY—*Continued.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Claude *	66 44	99	66 32	11	Common.	57 20	96	64 28
2	Odessa.	65 36	97	62 24	12	Nugent *	57 16	103	67 24
3	Summit *	60 24	101	61 42	13	Stella *	56 7	99	65 20
4	Mansfield *	60 17	97	57 ..	14	Argyle *	55 44	97	64 28
5	Royal *	60 8	97	58 36	15	Yale *	54 38	100	64 8
6	Trooper *	59 32	97	57 ..	16	Oderbruch.	54 33	95	57 19
7	Mensury.	59 26	97	53 26	17	Garfield *	54 7	100	53 41
8	Empire *	58 44	100	57 4	18	Baxter.	52 37	96	59 13
9	Brome *	58 3	100	60 40	19	Albert *	49 16	97	53 36
10	Rennie's Improved.	57 31	96	62 9	20	Champion	43 15	93	41 7

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Indian Head in 1904 was 59 bus. 22 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Mensury.	57 ..	105	62 24	11	Argyle *	49 46	107	55 ..
2	Brome *	54 38	108	57 24	12	Baxter.	49 42	103	54 28
3	Oderbruch	54 4	103	58 6	13	Rennie's Improved	49 24	106	45 ..
4	Claude *	52 30	107	60 40	14	Empire *	48 36	107	55 20
5	Nugent *	51 4	108	47 24	15	Summit *	48 30	109	50 40
6	Royal *	50 42	105	46 12	16	Yale *	48 24	110	48 26
7	Mansfield *	50 41	108	48 36	17	Trooper *	48 23	111	50 50
8	Odessa.	50 34	103	57 14	18	Champion.	48 16	101	53 6
9	Common.	50 33	106	56 12	19	Stella *	48 ..	112	53 26
10	Albert *	50 24	107	63 36	20	Garfield *	44 33	107	51 12

The average crop of the twenty varieties of six-rowed barley tested on the Experimental Farm at Agassiz in 1904 was 53 bus. 41 lbs. per acre.

TWO-ROWED BARLEY.

Fifteen varieties of two-rowed barley were tested, during the season of 1904, on all the Experimental Farms. The plots were of the same size as those of spring wheat. The seed was used at the rate of two bushels per acre; and the dates of sowing were as follows:—At Ottawa, Ont., May 4; Nappan, N.S., May 24; Brandon, Man., June 6; Indian Head, N.W.T., May 14; and at Agassiz, B.C., April 23.

In Canada the bushel of barley is 48 lbs.

TWO ROWED BARLEY—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing for five years.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	French Chevalier.....	51 14	104	48 32	7	Logan *.....	45 25	100	45 45
2	Danish Chevalier.....	50 8	104	52 ..	8	Harvey *.....	45 16	100	43 47
3	Canadian Thorpe.....	49 11	102	46 38	9	Clifford *.....	44 41	99	44 12
4	Beaver *.....	48 26	101	45 29	10	Newton.....	44 33	103	36 10
5	Dunham *.....	46 23	100	42 15	11	Jarvis *.....	44 13	98	42 23
6	Sidney *.....	46 3	99	41 40	12	Fulton *.....	42 45	100	45 5
	Varieties tested for less than five years.	Average yield for less than five years.				Varieties tested for less than five years.	Average yield for less than five years.		
Standwell (4 years).....		51 40	105	51 13	Gordon * (4 years).....		46 3	99	45 7
Invincible (4 years).....		47 4	103	49 2					

The average crop of the fifteen varieties of two rowed barley tested on all the Experimental Farms in 1904 was 45 bus. 21 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	
		Bu. Lbs.	Days.		Bu. Lbs.	Days.			Bu. Lbs.	Days.		Bu. Lbs.	Days.
1	French Chevalier	53	38	99	44	8	7	Newton	40	8	100	33	36
2	Canadian Thorpe	51	18	99	44	8	8	Sidney *	38	40	98	30	20
3	Danish Chevalier	46	28	100	32	41	9	Logan *	38	38	101	20	..
4	Beaver *	45	18	96	31	32	10	Fulton *	38	30	99	32	44
5	Jarvis *	41	42	96	35	40	11	Dunham *	37	10	100	15	..
6	Clifford *	41	26	98	32	24	12	Harvey *	36	26	101	29	28
Varieties tested for less than five years.		Average yield for less than five years.					Varieties tested for less than five years.		Average yield for less than five years.				
Gordon * (4 years)		42	36	98	39	28	Invincible (4 years)		39	33	101	36	32
Standwell (4 years)		42	16	100	41	32							

The average crop of the fifteen varieties of two-rowed barley tested on the Central Experimental Farm in 1904 was 33 bus. 19 lbs. per acre.

TWO ROWED BARLEY—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N. S.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Danish Chevalier.....	57 ..	97	57 24	7	Logan *.....	41 ..	97	41 32
2	Beaver *.....	53 32	95	42 24	8	Sidney *.....	40 26	97	32 24
3	French Chevalier.....	52 8	97	45 40	9	Clifford *.....	40 2	96	35 10
4	Newton.....	46 32	97	26 32	10	Harvey *.....	40 ..	97	36 32
5	Canadian Thorpe.....	45 24	99	22 24	11	Fulton *.....	36 4	98	32 4
6	Dunham *.....	41 32	97	44 8	12	Jarvis *.....	31 4	96	21 32
Varieties tested for less than five years.		Average yield for less than five years.			Varieties tested for less than five years.		Average yield for less than five years.		
Standwell (4 years).....		43 6	99	27 24	Gordon (4 years) *.....		36 22	97	21 32
Invincible (4 years).....		40 28	98	31 24					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Nappan in 1904 was 34 bushels 31 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Dunham *.....	53 2	94	56 32	7	Sidney *.....	44 16	91	55 40
2	Logan *.....	49 28	95	52 24	8	Beaver *.....	42 36	95	52 24
3	Harvey *.....	49 23	93	55 40	9	French Chevalier.....	42 30	98	42 44
4	Fulton *.....	47 44	92	59 28	10	Canadian Thorpe.....	40 24	97	55 20
5	Jarvis *.....	47 26	90	55 40	11	Newton.....	39 30	98	30 20
6	Clifford *.....	46 24	92	58 36	12	Danish Chevalier.....	37 44	99	53 36
Varieties tested for less than five years.		Average yield for less than five years.			Varieties tested for less than five years.		Average yield for less than five years.		
Gordon * (3 years).....		45 30	94	63 36	Invincible (3 years).....		41 39	94	63 36
Standwell (3 years).....		42 1	96	63 36					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Brandon in 1904 was 54 bushels 36 lbs. per acre.

TWO ROWED BARLEY—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Danish Chevalier	66 26	110	59 8	7	Harvey *	52 35	97	49 23
2	French Chevalier	59 18	110	58 16	8	Logan *	51 13	98	47 29
3	Sidney *	59 9	97	48 46	9	Fulton *	50 35	98	50 45
4	Canadian Thorpe	57 6	104	55 40	10	Beaver *	50 9	106	50 45
5	Jarvis *	53 37	98	46 27	11	Newton	49 22	108	40 ..
6	Clifford *	53 ..	98	48 46	12	Dunham *	48 33	99	46 27
	Varieties tested for less than five years.	Average yield for less than five years.				Varieties tested for less than five years.	Average yield for less than five years.		
	Standwell (4 years)	67 44	109	67 9		Gordon * (4 years)	53 5	98	49 23
	Invincible (4 years)	64 25	108	67 4					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Indian Head in 1904 was 52 bus. 23 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	Canadian Thorpe	51 42	113	56 2	7	Sidney *	47 22	114	56 22
2	Dunham *	51 38	111	49 8	8	Newton	47 18	111	50 10
3	Beaver *	50 36	112	50 20	9	Jarvis *	47 4	109	54 24
4	Danish Chevalier	48 36	113	56 32	10	Logan *	47 ..	110	54
5	French Chevalier	48 26	114	52 4	11	Clifford *	43 10	109	..
6	Harvey *	47 42	110	48 16	12	Fulton *	41 14	112	..
	Varieties tested for less than five years.	Average yield for less than five years.				Varieties tested for less than five years.	Average yield for less than five years.		
	Standwell (4 years)	54 12	115	56 12		Invincible	48 38	113	49 12
	Gordon * (4 years)	52 20	119	51 12					

The average crop of the fifteen varieties of two-rowed barley tested on the Experimental Farm at Agassiz in 1904 was 52 bus. 30 lbs. per acre.

PEASE

Thirty-one varieties of pease have been under trial at all the Experimental Farms during the past season. The plots were of the same size as those sown with spring wheat. The quantity of seed used per acre varied from two to three bushels, depending on the size of the pea. The dates of sowing were as follows:—At Ottawa, Ont., May 4; Nappan, N.S., May 28; Brandon, Man., May 11; Indian Head, N.W.T., May 16; and at Agassiz, B.C., April 14.

In Canada the bushel of pease is 60 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.
		Bu.	Lbs.					Bu.	Lbs.		
1	Crown.....	38	34	115	41 20	17	White Wonder.....	36	45	113	39 46
2	Early Britain...	38	28	114	42 4	18	Prussian Blue.....	36	42	115	43 4
3	Pride.....	38	24	116	43 28	19	Nelson *.....	36	37	114	41 48
4	Arthur *.....	38	16	114	44 12	20	Mummy.....	36	33	117	42 ..
5	Macour *.....	38	10	120	42 42	21	German White.....	36	27	114	42 14
6	Agnes *.....	37	44	116	43 58	22	Pearl *.....	36	23	120	41 44
7	Archer *.....	37	43	119	45 32	23	Wisconsin Blue.....	36	23	118	41 4
8	Mackay *.....	37	40	118	47 26	24	White Marrowfat.....	36	15	119	44 24
9	Prince *.....	37	36	117	47 12	25	Gregory *.....	36	14	118	41 24
10	Pictou *.....	37	31	115	47 54	26	Victoria *.....	36	6	121	43 52
11	Daniel O'Rourke.....	37	31	113	46 ..	27	Chancellor.....	36	4	113	38 48
12	King *.....	37	22	117	46 2	28	Kent *.....	35	34	120	41 16
13	English Grey.....	37	21	117	40 54	29	Duke *.....	35	27	118	40 14
14	Golden Vine.....	37	6	115	45 14	30	Prince Albert.....	35	17	118	41 20
15	Paragon *.....	36	58	116	41 42	31	Black-eyed Marrowfat	35	6	117	40 48
16	Carleton *.....	36	58	118	44 38						

The average crop of the thirty-one varieties of pease tested on all the Experimental Farms in 1904 was 43 bush. 2 lbs. per acre.

PEASE—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.	Days.	
1	Golden Vine.....	36	48	111	42	20	17	Early Britain.....	30	40	112	27	20
2	Prince *.....	33	48	113	42	..	18	White Wonder.....	30	36	107	37	40
3	Kent *.....	33	44	113	36	40	19	Pride.....	30	24	111	26	..
4	Paragon *.....	33	12	107	21	40	20	Archer.....	30	12	115	41	20
5	Prussian Blue.....	33	12	110	38	20	21	Crown.....	30	12	111	26	..
6	Mackay *.....	32	20	111	45	40	22	Muminy.....	30	12	114	29	40
7	English Grey.....	32	13	112	29	20	23	Wisconsin Blue.....	29	56	113	35	20
8	Victoria *.....	32	4	116	45	..	24	White Marrowfat.....	29	28	112	33	20
9	Chancellor.....	32	..	106	30	..	25	Pearl *.....	29	16	113	23	..
10	Nelson *.....	31	52	108	38	40	26	Gregory *.....	29	4	112	34	..
11	Daniel O'Rourke.....	31	44	108	34	..	27	Agnes *.....	29	..	111	37	20
12	King *.....	31	32	113	39	40	28	Black-eyed Marrowfat.....	28	32	114	31	..
13	Arthur *.....	31	24	109	29	40	29	Macoun *.....	27	24	114	32	..
14	Picton *.....	31	20	112	41	..	30	German White.....	26	52	109	34	40
15	Prince Albert.....	31	16	113	41	20	31	Carleton *.....	26	36	113	22	..
16	Duke *.....	30	52	112	25	..							

The average crop of the thirty-one varieties of pease tested on the Central Experimental Farm in 1904 was 33 bus. 54 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.		Yield in 1904.
		Bu. Lbs.	Days.	Bu. Lbs.	Days.				Bu. Lbs.	Days.	Bu. Lbs.	Days.	
1	Agnes *.....	35	12	112	34	..	17	English Grey.....	28	..	113	21	20
2	Archer *.....	34	56	112	33	20	18	White Marrowfat.....	27	44	112	28	..
3	Crown.....	33	28	110	27	20	19	Duke *.....	26	56	112	26	40
4	Arthur *.....	33	12	110	24	..	20	German White.....	26	56	110	26	..
5	Nelson *.....	32	32	109	33	20	21	Pearl *.....	26	40	115	24	40
6	Macoun *.....	31	4	114	31	20	22	Picton *.....	26	28	110	29	20
7	Pride.....	30	40	111	30	40	23	Kent *.....	26	8	114	22	40
8	Carleton *.....	30	..	113	36	..	24	Golden Vine.....	26	8	109	31	20
9	Prince Albert.....	29	36	112	36	40	25	King *.....	26	..	110	32	..
10	Chancellor.....	29	28	108	26	40	26	Early Britain.....	26	..	108	20	40
11	Mackay *.....	29	20	114	28	..	27	Wisconsin Blue.....	25	44	112	24	..
12	Gregory *.....	29	12	114	28	40	28	Prince *.....	25	28	110	29	20
13	Victoria.....	28	56	117	30	40	29	Prussian Blue.....	24	24	109	19	20
14	Muminy.....	28	48	111	22	40	30	Paragon *.....	22	56	110	20	..
15	Daniel O'Rourke.....	28	32	110	23	20	31	White Wonder.....	22	32	108	12	40
16	Black-eyed Marrowfat.....	28	..	113	25	20							

The average crop of the thirty-one varieties of pease tested on the Experimental Farm at Nappan in 1904 was 27 bush. 5 lbs. per acre.

PEASE—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	
		Bu. Lbs.	Days.		Bu. Lbs.	Days.			Bu. Lbs.	Days.		Bu. Lbs.	Days.
1	Macoun *	52 52	127	79	40		17	German White.	44 42	120	50	20	
2	Victoria *	50 14	128	71	40		18	Pride.	44 24	122	64	20	
3	King *	49 48	124	75	..		19	White Marrowfat	44 ..	130	68	20	
4	Pearl *	48 42	129	73	20		20	English Grey.	43 46	127	60	..	
5	Archer *	48 12	125	84	..		21	Prince Albert.	43 20	126	60	40	
6	Wisconsin Blue.	48 12	121	87	20		22	Prussian Blue.	43 6	119	58	..	
7	Mackay *	48 ..	124	85	..		23	Daniel O'Rourke.	42 50	121	67	..	
8	Golden Vine.	47 26	119	66	20		24	Kent *	42 40	127	61	20	
9	Early Britain.	47 26	118	71	..		25	Prince *	42 23	127	63	20	
10	Mummy.	47 22	124	73	..		26	Gregory *	42 20	124	70	..	
11	Picton *	47 20	121	77	10		27	Nelson *	41 46	116	57	40	
12	Carleton *	46 52	123	73	50		28	Agnes *	41 30	120	56	..	
13	White Wonder.	46 10	116	65	40		29	Duke *	41 22	124	58	..	
14	Crown.	45 4	117	57	20		30	Black-eyed Marrowfat	39 38	118	52	..	
15	Arthur *	44 58	117	77	..		31	Chancellor.	39 38	113	51	20	
16	Paragon *	44 54	120	73	20								

The average crop of the thirty-one varieties of pease tested on the Experimental Farm at Brandon in 1904 was 65 bus. 27 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average days maturing for five years.	Yield in 1904.	
		Bu. Lbs.	Days.		Bu. Lbs.	Days.			Bu. Lbs.	Days.		Bu. Lbs.	Days.
1	Paragon *	49 8	118	61	20		17	Arthur *	43 54	118	61	40	
2	Daniel O'Rourke.	48 35	109	67	..		18	Black-eyed Marrowfat	43 38	117	63	40	
3	Crown.	47 46	113	62	40		19	Archer *	42 54	118	61	40	
4	Prussian Blue.	47 42	115	67	..		20	Wisconsin Blue	42 54	118	54	..	
5	Pride *	47 30	114	63	20		21	Macoun *	42 42	120	31	40	
6	Picton *	47 18	115	63	20		22	Pearl *	41 34	117	58	20	
7	Prince *	47 18	114	66	..		23	Mackay *	40 26	119	45	40	
8	Early Britain.	46 50	113	55	40		24	Golden Vine.	40 26	113	58	..	
9	Carleton *	46 14	118	59	..		25	Nelson *	40 10	117	48	40	
10	English Grey.	45 22	113	58	20		26	Mummy.	40 ..	112	50	40	
11	White Wonder.	45 14	109	62	20		27	Duke *	..	118	54	..	
12	Gregory *	45 6	118	40	..		28	Kent *	.. 18	119	45	40	
13	German White.	45 6	113	61	40		29	White Marrowfat	38 2	117	55	..	
14	Agnes *	45 2	114	65	20		30	Prince Albert	36 38	116	37	40	
15	Chancellor	44 46	112	59	20		31	Victoria *	34 18	119	35	20	
16	King *	43 58	117	51	20								

The average crop of the thirty-one varieties of pease tested on the Experimental Farm at Indian Head in 1904 was 55 bus. 48 lbs. per acre.

PEASE—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.	Average days maturing.	Yield for 1904.
		Bu. Lbs.	Days.	Bu. Lbs.			Bu. Lbs.	Days.	Bu. Lbs.
1	White Marrowfat	42	125	37 20	17	Daniel O'Rourke	35 54	117	38 40
2	Early Britain	41 24	119	35 40	18	Black-eyed Marrowfat	35 44	123	32
3	White Wonder	39 18	123	30 30	19	Pearl	35 43	125	29 20
4	Pride	39 2	122	33	20	Prince Albert	35 36	123	30 20
5	Prince	39	122	35 20	21	King	35 34	123	32 10
6	German White	38 33	120	38 30	22	Gregory	35 30	123	34 20
7	Mackay	38 14	123	32 50	23	Pictou	35 10	124	28
8	Duke	38 14	126	37 30	24	Wisconsin Blue	35 10	124	34 40
9	Agnes	37 56	123	27 10	25	Carleton	35 6	123	32 20
10	Arthur	37 50	121	28 40	26	Prussian Blue	35 4	123	32 40
11	English Grey	37 24	121	35 30	27	Victoria	35	125	36 40
12	Macoun	36 48	124	38 50	28	Golden Vine	34 42	123	28 10
13	Nelson	36 44	120	30 40	29	Paragon	34 40	125	32 30
14	Kent	36 28	125	40	30	Chancellor	34 30	125	26 40
15	Crown	36 22	122	33 20	31	Archer	32 22	126	27 20
16	Mummy	36 12	124	34					

The average crop of the thirty-one varieties of pease tested on the Experimental Farm at Agassiz in 1904 was 33 bushels 3 lbs. per acre.

INDIAN CORN.

The number of varieties of Indian corn tested in 1904 was nineteen. These were sown in rows about three feet apart, and the plants thinned out to six or eight inches apart in the rows. The dates of sowing were as follows:—At Ottawa, Ont., June 7; Nappan, N.S., June 1; Brandon, Man., May 26; Indian Head, N.W.T., May 21; and at Agassiz, B.C., May 20.

The crop in each case was cut green and put into the silo for the winter feeding of stock. The dates of cutting were:—At Ottawa, Ont., Sept. 16; Nappan, N.S., Sept. 28; Brandon, Man., Sept. 23; Indian Head, N.W.T., Sept. 13; and at Agassiz, B.C., Oct. 8 to 11.

The yield per acre has been calculated in each case from the weight obtained from two rows each 66 feet long.

In Canada the ton is 2000 lbs.

INDIAN CORN—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Superior Fodder.....	19	1020	18	1903	10	Early Butler.....	17	1674	14	1942
2	Salzer's All Gold.....	19	515	20	20	11	Angel of Midnight.....	17	887	16	1488
3	Giant Prolific Ensilage.....	19	98	18	1948	12	North Dakota White.....	16	1906	14	1084
4	Early Mastodon.....	18	1617	13	972	13	White Cap Yellow Dent.....	16	1361	17	782
5	Red Cob Ensilage.....	18	1536	17	1979	14	Cloud's Early Yellow.....	16	1315	14	146
6	Pride of the North.....	18	736	15	1984	15	Longfellow.....	16	1250	14	1174
7	Mammoth Cuban.....	18	501	15	668	16	Selected Leaming.....	16	316	9	1633
8	Champion White Pearl.....	18	485	15	1104	17	Evergreen Sugar.....	15	570	11	1100
9	Compton's Early.....	17	1785	17	54						
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Average yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Eureka (3 years).....		18	1806	16	1990	King Philip (3 years)....		16	1999	16	1192

The average crop of the nineteen varieties of Indian corn tested on all the Experimental Farms in 1904 was 15 tons 1585 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Giant Prolific Ensilage.....	23	299	24	1500	10	Champion White Pearl.....	19	1809	16	1330
2	Superior Fodder.....	22	1832	25	600	11	Compton's Early.....	19	1039	16	835
3	Salzer's All Gold.....	22	726	23	420	12	Cloud's Early Yellow.....	19	588	17	980
4	Early Mastodon.....	22	363	18	320	13	Selected Leaming.....	19	412	12	750
5	Early Butler.....	21	1164	19	940	14	North Dakota White.....	18	762	17	1530
6	Red Cob Ensilage.....	21	944	21	1780	15	Longfellow.....	17	1530	15	1240
7	Mammoth Cuban.....	20	1558	18	1730	16	Evergreen Sugar.....	17	1209	15	1240
8	White Cap Yellow Dent.....	20	1164	21	1780	17	Angel of Midnight.....	16	1850	14	1590
9	Pride of the North.....	20	542	13	850						
Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Eureka (3 years).....		24	657	26	140	King Philip (3 years)....		3	1913	17	320

The average crop of the nineteen varieties of Indian corn tested on the Central Experimental Farm in 1904 was 19 tons 109 lbs. per acre.

INDIAN CORN—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.
		Tons.	Lbs.				Tons.	Lbs.	
1	Superior Fodder.....	19	764	17	100	10	Mammoth Cuban.....	17	1926
2	Giant Prolific Ensilage.....	19	628	15	800	11	Selected Leaning.....	17	1024
3	Red Cob Ensilage.....	19	2	17	870	12	Early Yellow.....	17	860
4	Early Mastodon.....	18	0	13	950	13	White Cap Yellow Dent.....	17	606
5	Salzer's All Gold.....	18	370	20	700	14	Angel of Midnight.....	17	220
6	Pride of the North.....	18	610	17	320	15	Evergreen Sugar.....	16	1890
7	Early Butler.....	18	586	14	490	16	Compton's Early.....	16	1594
8	Longfellow.....	18	232	15	1668	17	North Dakota White.....	15	1900
9	Champion White Pearl.....	18	14	12	750				
Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.	Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.
Eureka (3 years).....		19	756	15	1350	King Philip.....		16	1257
								15	1900

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Nappan in 1904 was 14 tons 1468 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.
		Tons.	Lbs.				Tons.	Lbs.	
1	Champion White Pearl.....	19	1186	21	768	10	Longfellow.....	17	795
2	Superior Fodder.....	19	940	22	1408	11	Angel of Midnight.....	17	716
3	North Dakota White.....	19	482	17	1610	12	Early Butler.....	17	285
4	Giant Prolific Ensilage.....	18	678	25	160	13	Pride of the North.....	16	1783
5	Salzer's All Gold.....	18	362	21	240	14	White Cap Yellow Dent.....	16	1246
6	Early Mastodon.....	18	274	16	1000	15	Cloud's Early Yellow.....	15	1830
7	Compton's Early.....	18	98	16	1792	16	Selected Leaning.....	15	1346
8	Red Cob Ensilage.....	17	1534	23	200	17	Evergreen Sugar.....	14	670
9	Mammoth Cuban.....	17	1297	19	1600				
Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.	Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.
Eureka (3 years).....		20	209	15	360	King Philip (3 years).....		18	784
								20	920

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Brandon in 1904 was 18 tons 1641 lbs. per acre.

INDIAN CORN—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Angel of Midnight	18	1374	22	270	10	Early Butler	14	650	11	850
2	Salzer's All Gold	16	1306	18	1400	11	Superior Fodder	14	242	11	1320
3	Compton's Early	16	41	18	300	12	Mammoth Cuban	13	1880	10	20
4	North Dakota White	15	750	18	300	13	White-Cap Yellow Dent	13	1773	15	800
5	Giant Prolific Ensilage	15	624	13	1280	14	Evergreen Sugar	13	241	10	350
6	Longfellow	15	241	12	1410	15	Red Cob Ensilage	13	792	13	1500
7	Pride of the North	15	223	14	1700	16	Cloud's Early Yellow	13	415	9	700
8	Champion White Pearl	14	1641	15	1130	17	Selected Leaning	12	1362	3	600
9	Early Mastodon	14	1238	9	700						

Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
King Philip (3 years)		14	1407	19	500	Eureka (3 years)		13	1441	13	1500

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Indian Head in 1904 was 13 tons 1508 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
1	Red Cob Ensilage	22	110	13	1500	10	Early Butler	17	1684	13	400
2	Superior Fodder	21	1324	18	88	11	Cloud's Early Yellow	17	880	12	240
3	Pride of the North	21	524	11	1430	12	Angel of Midnight	17	276	14	490
4	Mammoth Cuban	20	1842	16	560	13	White-Cap Yellow Dent	16	516	10	1560
5	Early Mastodon	20	810	9	1690	14	North Dakota White	15	1636	7	300
6	Salzer's All Gold	20	722	16	1440	15	Selected Leaning	15	1438	9	1800
7	Giant Prolific Ensilage	19	192	13	1500	16	Longfellow	14	1458	10	1120
8	Compton's Early	19	152	19	1840	17	Evergreen Sugar	14	160	5	670
9	Champion White Pearl	18	1774	11	1540						

Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Yield for 1904.	
		Tons.	Lbs.	Tons.	Lbs.			Tons.	Lbs.	Tons.	Lbs.
Eureka (3 years)		16	1953	14	600	King Philip (3 years)		16	633	10	20

The average crop of the nineteen varieties of Indian corn tested on the Experimental Farm at Agassiz in 1904 was 12 tons 199 lbs. per acre.

TURNIPS.

Twenty varieties were tested in 1904, sown in drills, or on the flat, 2½ feet apart. As in previous years, two sowings were made at each farm, the second sowing being about two weeks later than the first. The dates of sowing were as follows:—At Ottawa, Ont., May 17 and 31; Nappan, N.S., May 30 and June 13; Brandon, Man., May 10 and 23; Indian Head, N.W.T., May 15 and 27; and at Agassiz, B.C., May 13 and 27.

The dates of pulling were as follows:—At Ottawa, Oct. 14; Nappan, Oct. 24; Brandon, Oct. 6; Indian Head, Oct. 18; and at Agassiz, Oct. 24.

The varieties are arranged in the following lists in the order of their average yield from the first sowing, for five years.

In Canada the ton is 2000 lbs.

AVERAGE YIELD AT ALL THE EXPERIMENTAL FARMS

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Average yield for 1904		Average yield for 1904	
		1st Sowing		2nd Sowing		1st Sowing		2nd Sowing	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede.....	32	106	27	51	33	147	27	867
2	Hartley's Bronze.....	31	690	25	971	29	1910	24	1778
3	Mammoth Clyde.....	31	1843	25	945	29	782	24	996
4	Carter's Elephant.....	30	1761	22	1936	32	865	26	693
5	Hall's Westbury.....	30	1643	25	196	29	1250	25	40
6	Magnum Bonum.....	30	1297	25	1923	33	1230	27	1784
7	Imperial Swede.....	30	794	26	83	30	1691	25	1317
8	Diamond Purple Top.....	30	624	23	1622	31	1150	25	188
9	Hartley's Bronze Top.....	29	117	23	1974	32	1390	25	33
10	Elephant's M. Top.....	29	397	23	1232	31	260	26	223
11	Kaiserling.....	29	1390	23	1492	31	422	24	1645
12	Shampion.....	29	1629	25	37	30	616	27	1254
13	Junco.....	29	1216	23	921	32	1715	24	1698
14	Paradise Selected.....	29	573	21	1733	29	1638	26	539
15	Elmer's Letham.....	29	2	23	1969	29	1132	25	1553
16	Selected Purple Top.....	29	1940	24	971	28	1924	24	1181
17	Sutton's Champion.....	29	1	25	1197	29	1016	27	1608
Varieties tested for less than five years.		Average yield for less than five years		Average yield for less than five years		Average yield for 1904		Average yield for 1904	
		1st Sowing		2nd Sowing		1st Sowing		2nd Sowing	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Emperor Swede (4 years).....	32	99	27	316	30	582	26	1561
	Good Luck (3 years).....	33	1817	27	138	34	357	26	1439
	New Century (3 years).....	30	1699	24	1334	27	415	24	977

TURNIPS—Continued.

The average yield of the seventeen varieties of turnips on all the farms for five years was 30 tons 297 lbs. per acre from the first sowing and 24 tons 1399 lbs. per acre from the second sowing, an average gain of 5 tons 898 lbs. per acre from early sowing.

The average yield of the twenty varieties on all the farms in 1904 was 30 tons 1854 lbs. per acre from the first sowing and 25 tons 1731 lbs. per acre from the second sowing, an average gain of 5 tons 123 lbs. per acre from early sowing.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st Sowing.		2nd Sowing.		1st Sowing.		2nd Sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Magnum Bonum	37	1281	26	371	42	150	17	1310
2	Drummond Purple Top	37	1124	25	1810	35	372	18	1125
3	Kangaroo	37	1012	24	986	40	850	17	980
4	Jumbo	37	101	22	1665	36	1342	18	1297
5	Carter's Elephant	36	1375	22	1498	34	227	20	260
6	Hall's Westbury	36	187	24	31	19	272	20	1827
7	Imperial Swede	35	1677	25	374	30	15	19	32
8	Halewood's Bronze Top	35	1457	23	233	37	1817	19	1765
9	Mammoth Clyde	35	1236	24	1299	36	1672	16	1990
10	Elephant's Master	35	1115	22	1903	33	115	18	135
11	East Lothian	34	541	24	972	31	295	16	360
12	Skirvings	33	1580	23	398	32	1010	18	630
13	Perfection Swede	33	1287	25	341	35	785	17	1887
14	Selected Purple Top	33	656	26	1344	31	1667	18	217
15	Bangholm Select	32	1450	25	554	24	1830	18	1297
16	Sutton's Champion	32	1374	26	1675	39	1860	24	15
17	Hartley's Bronze	31	1475	24	708	37	1552	20	1910
	Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
		1st Sowing.		2nd Sowing.		1st Sowing.		2nd Sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Emperor Swede (4 yrs.)	39	540	27	161	26	930	18	1
	Good Luck (3 yrs.)	43	75	25	1617	36	435	19	1022
	New Century (3 yrs.)	41	500	21	460	30	885	17	1970

The average yield of the seventeen varieties of turnips on the Central Experimental Farm for five years was 35 tons 296 lbs. per acre from the first sowing and 24 tons 1160 lbs. per acre from the second sowing. An average gain of 10 tons 1136 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 35 tons 1255 lbs. per acre from the first sowing and 18 tons 1657 lbs. per acre from the second sowing. An average gain of 16 tons 1598 lbs. per acre from early sowing.

TURNIPS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede.....	42	212	34	1234	40	371	34	1300
2	Carter's Elephant.....	41	1424	29	496	38	1240	32	350
3	Kangaroo.....	40	1675	30	1780	37	135	33	1980
4	Imperial Swede.....	40	1048	31	75	34	1300	31	700
5	Hartley's Bronze.....	40	203	30	687	34	652	34	475
6	Halewood's Bronze Top.....	39	1200	31	1558	35	455	33	1211
7	Elephant's Master.....	39	1002	31	686	31	1855	33	495
8	Mammoth Clyde.....	39	903	31	971	35	1775	33	825
9	Magnum Bonum.....	39	771	32	957	36	1425	34	145
10	Selected Purple Top.....	38	1616	31	1117	37	1735	30	1875
11	Drummond Purple Top.....	38	1616	31	271	37	250	31	1855
12	Hall's Westbury.....	38	1319	32	812	35	950	33	1650
13	Bangholm Selected.....	38	857	29	1398	32	1175	28	255
14	Jumbo.....	37	1801	31	1796	39	375	35	785
15	Skirvings.....	37	1702	29	245	33	1980	24	925
16	Sutton's Champion.....	36	1644	33	66	35	785	33	1155
17	East Lothian.....	35	1643	29	47	30	1545	29	575
Varieties tested for less than five years.		Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Empetor Swede (4 yrs).....	38	1509	33	1031	37	1900	35	950
	Good Luck (3 yrs).....	43	130	36	1700	38	1880	35	125
	New Century (3 yrs).....	38	285	33	242	31	205	31	1520

The average yield of the seventeen varieties of turnips on the Experimental Farm at Nappan for five years was 39 tons 390 lbs. per acre from the first sowing and 31 tons 482 lbs. per acre from the second sowing. An average gain of 7 tons 1908 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 35 tons 1877 lbs. per acre from the first sowing and 32 tons 1397 lbs. per acre from the second sowing, an average gain of 3 tons 500 lbs. per acre from early sowing.

TURNIPS--Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1 Magnum Bonum.....	26	1434	17	901	34	640	25	1180
2 Hartley's Bronze.....	26	150	18	498	29	80	21	240
3 Skirryings.....	24	1474	18	643	26	800	22	880
4 Hall's Westbury.....	24	1368	18	1085	31	304	23	200
5 Kangaroo.....	24	682	15	1416	29	80	19	1600
6 Sutton's Champion.....	23	1467	16	50	26	1322	21	768
7 Perfection Swede.....	23	1256	18	696	29	1136	21	1560
8 Jumbo.....	23	253	17	421	37	1240	25	1180
9 Carter's Elephant.....	22	1830	13	1826	28	760	21	768
10 Bangholm Selected.....	22	1725	17	690	30	720	22	880
11 East Lothian.....	22	1566	15	1680	29	1400	21	768
12 Imperial Swede.....	22	1335	18	590	28	750	23	200
13 Mammoth Clyde.....	22	1302	17	1376	26	1328	23	1520
14 Elephant's Master.....	22	1197	11	459	26	800	19	1600
15 Drummond Purple Top.....	22	1091	14	1726	28	760	21	1560
16 Halewood's Bronze Top.....	21	1243	16	314	26	1328	19	280
17 Selected Purple Top.....	21	874	16	155	28	760	22	616

Varieties tested for less than five years.	Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Emperor Swede (4 yrs).....	23	860	16	76	27	1176	19	1600
Good Luck (3 yrs).....	33	20	392	43	1320	23	1520	
New Century (3 yrs).....	27	736	18	1400	28	132	23	1520

The average yield of the seventeen varieties of turnips on the Experimental Farm at Brandon for five years was 23 tons 957 lbs. per acre from the first sowing and 16 tons 1442 lbs. per acre from the second sowing, an average gain of 6 tons 1515 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 29 tons 1717 lbs. per acre from the first sowing and 22 tons 352 lbs. per acre from the second sowing, an average gain of 7 tons 1365 lbs. per acre from early sowing.

TURNIPS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede.....	24	1508	24	1128	25	1338	31	228
2	Hartley's Bronze.....	23	...	22	809	23	...	26	1036
3	Hall's Westbury.....	22	1495	20	594	25	1904	25	1621
4	Halewood's Bronze Top.....	22	1212	17	1826	25	1480	26	418
5	Selected Purple Top.....	21	1863	19	1391	21	287	24	...
6	Skirvings.....	21	1567	22	1453	28	854	30	814
7	Drummond Purple Top.....	21	954	17	351	29	268	29	1511
8	Mammoth Clyde.....	21	18	18	940	23	1944	25	1763
9	Sutton's Champion.....	20	1033	21	801	22	1961	26	1743
10	Imperial Swede.....	20	196	23	1592	26	1036	29	834
11	Bangholm Selected.....	19	1789	19	1146	23	813	26	753
12	Carter's Elephant.....	19	891	16	1521	20	1138	26	1884
13	Magnum Bonum.....	19	511	20	1818	26	187	30	1946
14	East Lothian.....	19	461	19	73	21	570	22	1510
15	Jumbo.....	19	386	16	1732	26	611	24	227
16	Elephant's Master.....	18	952	18	375	24	1641	23	217
17	Kangaroo.....	17	420	18	1806	22	1964	27	1177
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Emperor Swede (4 yrs).....	22	762	22	914	26	1036	23	430
	New Century (3 yrs).....	19	1149	20	1603	26	1318	30	248
	Good Luck (3 yrs).....	19	897	22	427	26	46	30	1521

The average yield of the seventeen varieties of turnips on the Experimental Farm at Indian Head for five years was 20 tons 1492 lbs. per acre from the first sowing and 19 tons 1862 lbs. per acre from the second sowing, an average gain of 1630 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 24 tons 1735 lbs. per acre from the first sowing and 27 tons 500 lbs. per acre from the second sowing, an average loss of 2 tons 765 lbs. per acre from early sowing.

TURNIPS—*Concluded.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Perfection Swede	36	177	32	856	34	1140	31	1360
2	Mammoth Clyde	35	1698	25	630	23	1190	22	880
3	Elephant's Master	34	1267	31	737	38	1550	36	640
4	Carter's Elephant	33	1298	32	427	40	685	31	205
5	East Lothian	32	1798	31	1930	34	1410	40	520
6	Imperial Swede	32	1791	31	1784	25	1315	25	820
7	Hartley's Bronze	32	1714	32	154	22	220	21	1230
8	Bangholm Selected	32	1051	32	757	37	999	31	1360
9	Hall's Westbury	31	1844	30	478	25	320	21	900
10	Halewood's Bronze Top	31	1055	30	1941	39	870	32	1670
11	Drummond Purple Top	31	337	28	1255	28	100	23	860
12	Skirvings	31	16	31	1148	30	300	38	1220
12	Jumbo	30	1347	28	258	24	1065	20	790
13	Magnum Bonum	29	480	30	1050	28	1750	31	40
15	Kangaroo	29	920	28	1552	26	470	25	490
16	Selected Purple Top	29	762	28	848	25	1480	23	1190
17	Sutton's Champion	27	1031	30	1292	22	80	31	1360

Varieties tested for less than five years.		Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Emperor Swede (4 yrs)	36	822	26	1546	22	1870	31	1535
	Good Luck (3 yrs)	30	1985	30	555	26	305	24	1005
	New Century (3 yrs)	27	1825	29	963	19	115	18	1620

The average yield of the seventeen varieties of turnips on the Experimental Farm at Agassiz for five years was 32 tons 35 lbs. per acre from the first sowing and 30 tons 895 lbs. per acre from the second sowing, an average gain of 1 ton 1140 lbs. per acre from early sowing.

The average yield of the twenty varieties in 1904 was 28 tons 1699 lbs. per acre from the first sowing and 28 tons 384 lbs. per acre from the second sowing, an average gain of 1315 lbs. per acre from early sowing.

MANGELS.

Sixteen varieties of mangels have been under test during 1903. All were sown in drills or on the flat in rows $2\frac{1}{2}$ feet apart. Two sowings were made at each farm, the second sowing being about two weeks later than the first. The dates of sowing were as follows:—At Ottawa, Ont., May 17 and 31; Nappan, N.S., May 30 and June 13; Brandon, Man., May 7 and 21; Indian Head, N.W.T., May 19 and 27; and at Agassiz, B.C., April 25 and May 9.

MANGELS—Continued.

The dates of pulling were as follows:—At Ottawa, Oct. 14; Nappan, Oct. 12; Brandon, Sept. 24; Indian Head, Oct. 3; and at Agassiz, Oct. 22.

The varieties are arranged in the following lists in the order of their average yield, from the first sowing, for five years.

In Canada the ton is 2000 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Average yield for 1904.		Average yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red.....	31	651	25	319	26	14	19	968
2	Mammoth Yellow Intermediate.....	31	294	25	658	29	341	23	771
3	Giant Yellow Intermediate.....	30	1471	23	1493	25	1831	21	38
4	Lion Yellow Intermediate.....	30	456	25	904	26	1693	22	1169
5	Half Long Sugar white.....	29	1491	21	1611	27	1174	23	224
6	Yellow Intermediate.....	29	987	21	215	30	599	22	1008
7	Giant Yellow Globe.....	28	778	21	322	24	1840	22	1857
8	Prize Mammoth Long Red.....	28	614	23	1460	24	72	20	1552
9	Gate Post.....	28	351	23	1870	22	984	20	811
10	Selected Mammoth Long Red.....	27	1974	24	1348	22	1028	18	277
11	Half Long Sugar Rosy.....	27	1093	22	119	21	1296	18	104
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for less than five years.		Average yield for 1904.		Average yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Prize Winner Yellow Globe † (4 yrs).....	29	1685	24	1532	28	469	21	1783
	Triumph Yellow Globe (4 yrs).....	28	1282	23	1257	25	1676	20	1006
	Leviathan Long Red (4 yrs).....	26	819	25	458	23	1435	20	533
	Selected Yellow Globe † (3 yrs).....	29	1734	24	98	22	987	21	1157
	Giant Sugar Mangel † (3 yrs).....	27	1917	22	1772	25	232	20	1176

The average yield of the eleven varieties of mangels on all the farms for five years was 29 tons 742 lbs. per acre from the first sowing and 21 tons 577 lbs. per acre from the second sowing. An average gain of 5 tons 165 lbs. per acre from early sowing.

The average yield of the sixteen varieties on all the farms in 1904 was 25 tons 877 lbs. per acre from the first sowing and 21 ton 188 lbs. per acre from the second sowing. An average gain of 4 tons 689 lbs. per acre from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1901	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red	43	97	28	521	34	1639	17	897
2	Mammoth Yellow Intermediate	41	1638	27	1407	34	722	17	1619
3	Yellow Intermediate	39	61	27	1968	32	1257	16	1947
4	Half Long Sugar White	38	1170	25	341	36	1507	18	1785
5	Lion Yellow Intermediate	38	522	29	377	30	637	17	1316
6	Prize Mammoth Long Red	38	345	25	1615	37	167	17	815
7	Giant Yellow Intermediate	36	1986	22	22	32	1175	16	1495
8	Gate Post	36	1986	27	1368	24	1005	16	679
9	Giant Yellow Globe	35	653	23	632	27	285	13	1394
10	Half Long Sugar Rosy	35	533	21	1774	24	1512	14	957
11	Selected Mammoth Long Red	33	1782	25	1381	29	80	16	719
Varieties tested for less than five years.		Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1901	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Triumph Yellow Globe (4 yrs)	39	292	24	242	31	40	16	122
	Prize Winner Yellow Globe (4 yrs)	38	269	25	510	30	142	15	1762
	Leviathan Long Red (4 yrs)	33	1175	23	1334	29	1182	14	1452
	Selected Yellow Globe (3 yrs)	34	869	19	1187	24	1665	14	1287
	Giant Sugar Mangel (3 yrs)	33	1485	26	1855	28	1990	15	1185

The average yield of the eleven varieties of mangels on the Central Experimental Farm for five years was 37 tons 1888 lbs. per acre from the 1st sowing and 25 tons 1763 lbs. per acre from the second sowing, an average gain of 12 tons 125 lbs. per acre from early sowing.

The average yield of the sixteen varieties in 1904 was 30 tons 1277 lbs. per acre, from the first sowing and 16 tons 582 lbs. per acre from the second sowing, an average gain of 14 tons 695 lbs. per acre from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Lion Yellow Intermediate.....	42	318	35	1676	33	660	31	535
2	Mammoth Yellow Intermediate.....	41	1190	34	1729	36	435	30	1380
3	Giant Yellow Intermediate.....	40	256	32	1142	33	495	27	285
4	Yellow Intermediate.....	39	111	31	665	40	1015	31	1525
5	Giant Yellow Globe.....	36	1656	32	119	22	1870	23	550
6	Gate Post.....	35	851	29	797	20	425	25	1480
7	Prize Mammoth Long Red.....	35	69	29	1499	21	1395	21	1005
8	Mammoth Long Red.....	34	1234	29	1532	19	1600	18	630
9	Half Long Sugar White.....	33	1947	29	686	26	305	25	490
10	Half Long Sugar Rosy.....	33	1782	28	1123	25	1810	24	510
11	Selected Mammoth Long R.....	33	1740	30	456	20	1085	20	590

Varieties tested for less than five years.	Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Prize Winner Yellow Globe † (4 yrs).....	37	250	29	204	....	15	855	
Leviathan Long Red (4 yrs).....	32	389	29	781	25	400	21	900
Triumph Yellow Globe (4 yrs).....	30	1909	29	585	19	280	19	610
Selected Yellow Globe (3 yrs).....	38	560	31	651	22	1540	21	735
Giant Sugar Mangel (3 yrs).....	33	1100	27	1172	28	1090	24	530

The average yield of the eleven varieties of mangels on the Experimental Farm at Nappan for five years was 36 tons 1953 lbs. per acre from the first sowing, and 31 tons 485 lbs. per acre from the second sowing, an average gain of 5 tons 1468 lbs. per acre from early sowing.

The average yield of the varieties grown in 1904 was 26 tons 833 lbs. per acre from the first sowing and 23 tons 1913 lbs. per acre from the second sowing, an average gain of 2 tons 920 lbs. per acre from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Half Long Sugar White.....	27	1546	25	213	35	1744	31	40
2	Mammoth Long Red.....	27	1176	22	88	31	1696	27	120
3	Selected Mammoth Long Red.....	25	1323	24	415	31	304	29	1928
4	Mammoth Yellow Intermediate.....	24	418	20	1382	39	1992	31	564
5	Gate Post.....	23	728	22	888	37	712	29	872
6	Yellow Intermediate.....	23	338	20	245	31	1624	38	32
7	Prize Mammoth Long Red.....	23	253	21	82	24	476	30	192
8	Giant Yellow Intermediate.....	22	1837	18	1963	31	40	31	791
9	Half Long Sugar Rosy.....	22	1381	19	650	26	800	28	760
10	Giant Yellow Globe.....	21	1190	24	992	25	160	25	1280
11	Lion Yellow Intermediate.....	21	768	18	1277	27	648	21	1104
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Triumph Yellow Globe (4 yrs).....	26	1196	22	682	31	568	28	770
	Leviathan Long Red (4 yrs).....	24	76	20	1418	31	40	28	176
	Prize Winner Yellow Globe (4 yrs).....	23	296	25	333	31	1360	33	1312
	Selected Yellow Globe (3 yrs).....	22	1848	25	1568	24	1896	26	660
	Giant Sugar Mangel (3 yrs).....	22	264	20	1712	29	80	27	608

The average yield of the eleven varieties of mangels on the Experimental Farm at Brandon for five years was 23 tons 1909 lbs. per acre from the first sowing and 21 tons 745 lbs. per acre from the second sowing. An average gain of 2 tons 1164 lbs per acre from early sowing.

The average yield of the sixteen varieties in 1904 was 30 tons 1710 lbs. per acre from the first sowing and 30 tons 951 lbs. per acre from the second sowing. An average gain of 759 lbs. from early sowing.

MANGELS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Giant Yellow Intermediate	22	1963	18	1627	19	1176	18	347
2	Lion Yellow Intermediate	21	1651	19	1136	..	..	25	914
3	Prize Mammoth Long Red	21	1056	19	1444	18	206	17	1898
4	Giant Post.	21	802	17	1403	16	528	23	247
5	Giant Yellow Globe	21	394	21	131	18	1903	26	1743
6	Mammoth Yellow Intermediate	21	377	18	702	17	650	23	1237
7	Selected Mammoth Long Red	20	1298	20	1877	19	327	16	953
8	Half Long Sugar White	20	1063	19	1043	21	..	26	1743
9	Half Long Sugar Rosy	19	1722	15	1856	18	1054	14	1131
10	Mammoth Long Red	19	1115	19	1448	16	1094	17	1781
11	Yellow Intermediate	19	1041	19	895	19	186	16	1094
Varieties tested for less than five years.		Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Prize Winner Yellow Globe (4 yrs)	23	608	21	213	23	1237	27	1581
	Triumph Yellow Globe (4 yrs)	22	520	21	1670	23	388	27	1581
	Leviathan Long Red (4 yrs)	20	209	19	1730	18	1478	23	1944
	Selected Yellow Globe † (3 yrs)	21	1140	17	1626	..	..	23	671
	Giant Sugar Mangel † (3 yrs)	18	660	18	1242	..	..	22	1823

The average yield of the eleven varieties of mangels on the Experimental Farm at Indian Head for five years was 20 tons 1862 lbs. per acre from the first sowing and 19 tons 324 lbs. per acre from the second sowing, an average gain of 1 ton 1538 lbs. per acre from early sowing.

The average yield of the varieties grown in 1904 was 19 tons 479 lbs. per acre from the first sowing and 22 tons 143 lbs. per acre from the second sowing, an average loss of 2 tons 1664 lbs. per acre from early sowing.

MANGELS—*Continued.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B. C.

Number.	Varieties tested for five years.	Average yield for five years, 1st sowing.		Average yield for five years, 2nd sowing.		Yield for 1904, 1st sowing.		Yield for 1904, 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Mammoth Long Red.	31	1631	26	6	27	648	16	1264
2	Giant Yellow Intermediate.	30	1293	26	712	13	268	11	1760
3	Half Long Sugar White.	27	1728	24	1874	19	16	13	1060
4	Lion Yellow Intermediate.	27	989	24	53	16	826	13	1984
5	Giant Yellow Globe.	26	1907	20	1705	30	984	16	473
6	Mammoth Yellow Intermediate.	26	1546	25	68	17	1904	13	928
7	Yellow Intermediate.	26	1365	21	1364	27	912	9	49
8	Half Long Sugar Rosy.	26	49	24	1192	19	1272	8	1160
9	Selected Mammoth Long Red.	25	1718	23	699	12	1344	7	1576
10	Glate Post.	23	1384	22	1043	14	248	7	784
11	Prize Mammoth Long Red.	23	1359	22	632	15	96	14	248

Varieties tested for less than five years.	Average yield for less than five years, 1st sowing.		Average yield for less than five years, 2nd sowing.		Yield for 1904, 1st sowing.		Yield for 1904, 2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Prize Winner Yellow Globe (4 years).	27	1094	23	343	18	1306	19	1294
Triumph Yellow Globe (4 years).	25	401	20	702	24	1104	10	1658
Leviathan Long Red (4 years).	22	245	22	995	13	1984	12	1672
Selected Yellow Globe (3 years).	32	262	25	1158	18	696	13	4
Giant Sugar Mangel (3 years).	32	75	26	877	21	240	13	1192

The average yield of the eleven varieties of mangels on the Experimental Farm at Agassiz for five years was 27 tons 96 lbs. per acre from the first sowing and 23 tons 1569 lbs. per acre from the second sowing, an average gain of 3 tons 527 lbs. per acre from early sowing.

The average yield of the sixteen varieties grown in 1904 was 18 tons 1619 lbs. per acre from the first sowing and 12 tons 1353 lbs. per acre from the second sowing, an average gain of 6 tons 266 lbs. per acre from early sowing.

CARROTS.

Ten different sorts of carrots were tested during 1904, all being sown in drills or on the flat in rows two feet apart. Two sowings were made in each case, the second sowing being about two weeks later than the first. The dates of sowing were as follows:—At Ottawa, Ont. May 17 and 31; Nappan, N.S. May 30 and June 13; Brandon, Man., May 7 and 21; Indian Head, N.W.T., May 19 and May 27; and at Agassiz, B.C. April 25 and May 9.

CARROTS *Continued.*

The dates of pulling were as follows: At Ottawa, Oct. 11; Nappan, Oct. 25; Brandon, Sept. 27; Indian Head, Oct. 20; and at Agassiz, Oct. 24.

The varieties are arranged in the following lists in the order of their average yield, from the first sowing, for five years.

In Canada the ton is 2,000 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years, (omitting Indian Head for 1904) 1st sowing.		Average yield for five years, (omitting Indian Head for 1904) 2nd sowing.		Average yield for 1904 (omitting Indian Head) 1st sowing.		Average yield for 1904 (omitting Indian Head) 2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Giant White Vosges.....	23	1846	19	814	22	1747	18	80
2	New White Intermediate.....	23	722	18	1831	23	523	17	1681
3	Ontario Champion.....	22	1791	18	814	22	1886	16	681
4	Mammoth White Intermediate.....	22	1692	19	1108	22	222	19	207
5	Improved Short White.....	22	826	19	338	20	780	14	602
6	White Belgian.....	20	132	16	1784	20	1209	15	1194
7	Long Yellow Stump Rooted.....	19	757	16	1265	22	344	19	60
8	Half Long Chantenay.....	18	875	15	1753	18	1219	16	230
9	Carter's Orange Giant.....	18	148	15	1339	22	735	18	251
10	Early Gem.....	16	1836	15	911	17	1764	17	1200

The average yield of the ten varieties of carrots on all the Experimental Farms for five years (omitting Indian Head for 1904) was 20 tons 1663 lbs. per acre from the first sowing and 17 tons 1196 lbs. per acre from the second sowing, an average gain of 3 tons 467 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 (omitting Indian Head) was 21 tons 646 lbs. per acre from the first sowing and 17 tons 1229 lbs. per acre from the second sowing, an average gain of 3 tons 1417 lbs. per acre from early sowing.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT

Number.	Varieties tested for five years.	Average yield for five years, 1st sowing.		Average yield for five years, 2nd sowing.		Yield for 1904, 1st sowing.	Yield for 1904, 2nd sowing.
		Tons.	Lbs.	Tons.	Lbs.	Lbs.	Lbs.
1	New White Intermediate.....	32	1521	26	230	24	592
2	Mammoth White Intermediate.....	32	1307	27	1638	23	200
3	Giant White Vosges.....	31	1525	25	292	24	1995
4	Improved Short White.....	29	1628	25	1136	22	1560
5	Ontario Champion.....	29	1461	24	147	22	840
6	Half Long Chantenay.....	26	1625	20	392	18	1950
7	Long Yellow Stump Rooted.....	26	870	21	965	19	1930
8	Carter's Orange Giant.....	24	1615	19	676	19	1022
9	White Belgian.....	23	695	20	920	17	815
10	Early Gem.....	21	471	19	973	18	300

CARROTS—Continued.

The average yield of the ten varieties of carrots on the Central Experimental Farm for five years was 27 tons 1902 lbs. per acre from the first sowing and 23 tons 137 lbs. per acre from the second sowing, an average gain of 4 tons 1765 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 21 tons 520 lbs. per acre from the first sowing and 17 tons 1541 lbs. per acre from the second sowing, an average gain of 3 tons 979 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1 Giant White Vosges.....	24	798	18	1257	18	960	16	340
2 Mammoth White Intermediate.....	24	609	19	355	21	1800	18	1620
3 Ontario Champion.....	23	827	18	1620	18	630	18	960
4 New White Intermediate.....	22	1903	19	1006	18	980	17	1117
5 Improved Short White.....	21	1593	17	1679	16	760	14	710
6 Long Yellow Stump Rooted.....	20	986	17	1603	19	1795	18	1650
7 White Belgian.....	20	788	16	371	20	290	18	1445
8 Half Long Chantenay.....	18	1029	17	617	18	465	17	1579
9 Early Gem.....	17	1667	16	637	17	1475	16	1550
10 Carter's Orange Giant.....	17	23	16	880	20	1910	19	1195

The average yield of the ten varieties of carrots on the Experimental Farm at Nappan for five years was 21 tons 208 lbs. per acre from the first sowing and 17 tons 1512 lbs. per acre from the second sowing, an average gain of 3 tons 696 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 19 tons 230 lbs. per acre from the first sowing and 17 tons 1457 lbs. per acre from the second sowing, an average gain of 1 ton 773 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANFORD, N.S.

Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1 New White Intermediate.....	22	1118	15	791	18	1400	24	1800
2 Ontario Champion.....	22	176	13	1360	35	1720	18	1620
3 Improved Short White.....	18	1576	14	791	18	1300	17	1117
4 White Belgian.....	18	1006	13	791	18	1300	17	1117
5 Giant White Vosges.....	18	80	13	292	26	1100	15	80
6 Long Yellow Stump Rooted.....	17	1112	15	1746	18	1300	17	1117
7 Mammoth White Intermediate.....	16	118	17	1576	30	1800	24	1620
8 Carter's Orange Giant.....	15	106	13	1610	21	1300	25	1640
9 Half Long Chantenay.....	14	1766	14	804	28	760	24	1720
10 Early Gem.....	12	1124	13	1708	22	880	23	1080

CARROTS—Continued.

The average yield of the ten varieties of carrots on the Experimental Farm at Brandon for five years was 17 tons 1311 lbs. per acre from the first sowing and 14 tons 221 lbs. per acre from the second sowing on average gain of 3 tons 1090 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 31 tons 1223 lbs. per acre from the first sowing and 23 tons 308 lbs. per acre from the second sowing, an average gain of 8 tons 920 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904, 1st sowing.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904, 1st sowing.
		1st sowing.	2nd sowing.				1st sowing.	2nd sowing.	
		Tns. Lbs.	Tns. Lbs.	Tns. Lbs.			Tns. Lbs.	Tns. Lbs.	Tns. Lbs.
1	Improved Short White	12	606 11	1902	7	284	7	Long Yellow Stump Rooted.	10 1076
2	New White Intermediate.	11	1442 11	101	4	768	8	Early Gem	9 1884
3	Giant White Vosges.	11	616 10	1123	4	1051	9	Mammoth	9 1484
4	Ontario Champion.	11	471 11	75	1	1536	9	turned Giant	9 781
5	Half Long Chantenay	11	396 9	525	5	1314	10	Carter's C.	8 1678
6	White Belgian.	10	1878 10	542	6	1294			8 662

The average yield of the ten varieties of carrots on the Experimental Farm at Indian Head was 9 tons 1433 lbs. per acre from the first sowing for five years, and 9 tons 1876 lbs. per acre from the second sowing for four years, an average loss of 443 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 3 tons 1962 lbs. per acre from the first sowing. Owing to unfavourable conditions the second sowing failed in 1904.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904, 1st sowing.	Yield for 1904, 2nd sowing.
		1st sowing.	2nd sowing.		
		Tons. Lbs.	Tons. Lbs.	Tons. Lbs.	Tons. Lbs.
1	Giant White Vosges.	32	911	29	1194
2	Mammoth White Intermediate.	29	753	25	1194
3	Improved Short White	27	1846	25	495
4	White Belgian.	25	1799	25	184
5	Ontario Champion	25	1205	21	598
6	New White Intermediate.	24	1666	24	829
7	Carter's Orange Giant.	23	332	20	865
8	Early Gem.	21	394	19	662
9	Long Yellow Stump Rooted.	19	1886	18	641
10	Half Long Chantenay.	19	1281	18	368
					8
					1820
					8
					5

CARROTS—*Concluded.*

The average yield of the ten varieties of carrots on the Experimental Farm at Agassiz for five years was 25 tons 16 lbs. per acre from the first sowing and 23 tons 103 lbs. per acre from the second sowing, an average gain of 1 ton 1913 lbs. per acre from early sowing.

The average yield of the ten varieties for 1904 was 13 tons 612 lbs. per acre from the first sowing and 11 tons 1611 lbs. per acre from the second sowing, an average gain of 1 ton 1001 lbs. per acre from early sowing.

SUGAR BEETS.

Eight varieties of sugar beets have been tested during 1904, sown in drills or on the flat in rows two feet apart. Two sowings were made at each farm, the second sowing being about two weeks later than the first. The dates of sowing were:—At Ottawa, Ont., May 17 and 31; Nappan, N.S., May 30 and June 13; Brandon, Man., May 7 and 21; and at Indian Head, N.W.T., May 19 and 27.

The dates of pulling were as follows:—At Ottawa, Oct. 14; Nappan, Oct. 12; Brandon, Sept. 24; and at Indian Head, Oct. 6.

The yield per acre in each instance has been calculated from the weight of roots gathered from two rows each 66 feet long.

Though all the varieties included in these tests are commonly classed as sugar beets it should be noted that the only sorts recommended for use in the manufacture of beet sugar are Wanzleben, Vilmorin's Improved, and French Very Rich.

In Canada the ton is 2000 lbs.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS

Number.	Varieties tested for five years.	Average yield for five years (omitting Agassiz for 1904)		Average yield for five years (omitting Agassiz for 1904)		Average yield for 1904 (omitting Agassiz)		Average yield for 1904 (omitting Agassiz)	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Danish Red Top	24	1813	21	1982	21	111	19	163
2	Danish Improved	24	1288	21	486	21	40	18	1147
3	Red Top Sugar	24	846	21	1766	21	309	22	1115
4	Improved Imperial	23	1052	21	451	20	1104	19	551
5	Wanzleben	21	794	18	492	18	1888	15	1508
6	Vilmorin's Improved	19	1218	17	735	16	1617	13	1481

Varieties tested for less than five years.	Average yield for less than five years (omitting Agassiz for 1904)		Average yield for less than five years (omitting Agassiz for 1904)		Average yield for 1904 (omitting Agassiz)		Average yield for 1904 (omitting Agassiz)	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Royal Giant (4 yrs)	25	1227	22	1395	24	1231	21	1673
French Very Rich (3 yrs)	18	549	16	35	16	425	12	1192

SUGAR BEETS—Continued.

The average yield of the six varieties of sugar beets on all the Experimental Farm, for five years (omitting Agassiz in 1904) was 23 tons 168 lbs. per acre from the first sowing and 20 tons 652 lbs. per acre from the second sowing, an average gain of 2 tons 1516 lbs. per acre from early sowing.

The average yield of the eight varieties for 1904 (omitting Agassiz) was 20 tons 843 lbs. per acre from the first sowing and 17 tons 1860 lbs. per acre from the second sowing, an average gain of 2 tons 983 lbs. per acre from early sowing.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Red Top Sugar	31	947	21	669	32	762	18	465
2	Danish Improved	30	934	20	1514	27	532	15	1680
3	Danish Red Top	30	175	21	1725	26	229	14	380
4	Improved Imperial	29	1878	21	1741	23	1272	15	277
5	Wanzleben	26	1542	18	448	21	982	15	1432
6	Vilmorin's Improved	23	249	14	1667	19	1847	12	585
Varieties tested for less than five years.		Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Royal Giant (4 yrs)	30	1957	23	35	31	40	18	135
	French Very Rich (3 yrs)	21	982	15	1405	17	1062	11	110

The average yield of the six varieties of sugar beets on the Central Experimental Farm for five years was 28 tons 1287 lbs. per acre from the first sowing and 19 tons 1627 lbs. per acre from the second sowing, an average gain of 8 tons 1660 lbs. per acre from early sowing.

The average yield of the eight varieties for 1904 was 24 tons 1840 lbs. per acre from the first sowing and 15 tons 133 lbs. per acre from the second sowing, an average gain of 9 tons 1707 lbs. per acre from early sowing.

SUGAR BEETS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Red Top Sugar	27	1275	25	457	26	140	27	1440
2	Danish Red Top	26	1757	24	510	20	95	20	755
3	Improved Imperial	26	666	22	220	23	355	21	75
4	Danish Improved	24	1949	22	946	20	1910	19	775
5	Wanzleben	24	213	20	821	22	880	18	1455
6	Vilmorin's Improved	22	914	19	841	18	795	16	1330
Varieties tested for less than five years.		Average yield for less than five years		Average yield for less than five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
	Royal Giant (4 yrs)	31	782	27	1935	24	1830	20	425
	French Very Rich (3 yrs)	19	1160	16	175	14	1295	12	1575

The average yield of the six varieties of sugar beets on the Experimental Farm at Nappan for five years was 25 tons 796 lbs. per acre from the first sowing and 22 tons 632 lbs. per acre from the second sowing, an average gain of 3 tons 164 lbs. per acre from early sowing.

The average yield of the eight varieties in 1904 was 21 tons 651 lbs. per acre from the first sowing and 19 tons 1229 lbs. per acre from the second sowing, an average gain of 1 ton 1422 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.

Number.	Varieties tested for five years.	Average yield for five years		Average yield for five years		Yield for 1904		Yield for 1904	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Danish Improved	24	272	19	1851	23	200	20	656
2	Red Top Sugar	23	1216	21	1956	24	48	25	1480
3	Danish Red Top	23	741	22	1052	23	992	23	464
4	Wanzleben	21	1969	17	518	22	880	18	1488
5	Improved Imperial	19	240	21	293	21	504	24	840
6	Vilmorin's Improved	16	1660	15	713	17	1904	16	208

SUGAR BEETS—Continued.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, BRANDON, MAN.—Con.

Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Royal Giant (4 years).....	18	168	19	1906	25	688	25	1744
French Very Rich (3 years).....	14	1040	12	1520	21	240	14	1040

The average yield of the six varieties of sugar beets on the Experimental Farm at Brandon for five years was 21 tons 1016 lbs. per acre from the first sowing and 19 tons 1402 lbs. per acre from the second sowing, an average gain of 1 ton 1614 lbs. per acre from early sowing.

The average yield of the eight varieties in 1904 was 22 tons 682 lbs. per acre from the first sowing and 21 tons 240 lbs. per acre from the second sowing, an average gain of 1 ton 442 lbs. per acre from early sowing.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for five years.		Yield for 1904.		Yield for 1904.	
		1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
		Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
1	Improved Imperial.....	17	1610	17	732	14	286	16	1094
2	Danish Red Top.....	17	1070	16	1976	14	1134	18	1054
3	Danish Improved.....	17	722	18	1964	12	1598	18	1478
4	Red Top Sugar.....	17	388	17	958	14	286	18	1196
5	Wanzleben.....	14	483	14	1169	9	810	9	1658
6	Vilmorin's Improved.....	14	93	15	536	10	1921	9	1800

Varieties tested for less than five years.	Average yield for less than five years.		Average yield for less than five years.		Yield for 1904.		Yield for 1904.	
	1st sowing.		2nd sowing.		1st sowing.		2nd sowing.	
	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.	Tons.	Lbs.
Royal Giant (4 years).....	20	1824	19	426	17	367	23	388
French Very Rich (3 years).....	13	106	11	234	11	1194	12	43

The average yield of the six varieties of sugar beets on the Experimental Farm at Indian Head for five years was 16 tons 728 lbs. per acre from the first sowing and 16 tons 1556 lbs. per acre from the second sowing, an average loss of 828 lbs. per acre from early sowing.

The average yield of the eight varieties in 1904 was 13 tons 200 lbs. per acre from the first sowing and 15 tons 1839 lbs. per acre from the second sowing, an average loss of 2 tons 1639 lbs. per acre from early sowing.

SUGAR BEETS - *Concluded.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.

Number.	Varieties tested for four years.	Average yield for four years		Number.	Varieties tested for four years.	Average yield for four years	
		1st sowing.	2nd sowing.			1st sowing.	2nd sowing.
		Tons.	Lbs.			Tons.	Lbs.
1	Danish Red Top.....	26	1322	4	Red Top Sugar.....	22	404
2	Danish Improved.....	26	566	5	Vilmerin's Improved	21	1175
3	Improved Imperial....	24	867	6	Wanzleben.....	19	1765
		Tons.	Lbs.			Tons.	Lbs.
	Varieties tested for less than four years.	Average yield for less than four years.			Varieties tested for less than four years.	Average yield for less than four years.	
		1st sowing.	2nd sowing.			1st sowing.	2nd sowing.
		Tons.	Lbs.			Tons.	Lbs.
	Royal Giant (3 years)....	26	1405		French Very Rich (2 years)	22	1457
		23	585			24	840

The average yield of the six varieties of sugar beets on the Experimental Farm at Agassiz for four years was 23 tons 1016 lbs. per acre from the first sowing and 23 tons 43 lbs. per acre from the second sowing, an average gain of 973 lbs. per acre from early sowing.

The sugar beets failed at Agassiz in 1904.

POTATOES.

Forty-one varieties of potatoes have been under test during 1904. The potatoes were cut into pieces with two or three eyes in each, and these pieces were planted in rows $2\frac{1}{2}$ feet apart, the sets being placed a foot apart in the rows. The dates of planting and digging were as follows:—At Ottawa, Ont., planted May 27, dug Oct. 6 and 7; at Nappan, N.S., planted May 31, dug Sept. 1 and 3; at Brandon, Man., planted May 4, dug Sept. 26; at Indian Head, N.W.T., planted May 20, dug Sept. 29; and at Agassiz, B.C., planted May 12, dug Sept. 20 and 21.

In Canada the bushel of potatoes is 60 lbs.

POTATOES—Continued.

AVERAGE YIELD ON ALL THE EXPERIMENTAL FARMS.

Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Average yield for 1904.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Rose No. 9.	421	24	430	19	17	Country Gentleman.	387	48	408	32
2	Late Puritan.	417	10	462	26	18	Irish Cobbler.	386	49	390	10
3	Carman No. 1.	416	17	417	11	19	Empire State.	381	46	397	2
4	Uncle Sam.	414	49	434	43	20	Cambridge Russet.	377	55	342	37
5	Burnaby Mammoth.	410	57	365	52	21	General Gordon.	377	52	406	7
6	Seedling No. 7.	403	38	373	7	22	Everett.	377	45	364	41
7	Dreer's Standard.	401	30	418	14	23	Vick's Extra Early.	377	43	385	9
8	Holborn Abundance.	398	51	408	28	24	Swiss Snowflake.	376	0	355	58
9	American Wonder.	398	14	369	49	25	Reeves' Rose.	374	40	384	7
10	State of Maine.	397	65	402	27	26	Penn Manor.	370	58	393	22
11	American Giant.	386	55	401	34	27	Maule's Thoroughbred.	361	13	337	58
12	Money Maker.	385	6	394	9	28	Carman No. 3.	360	47	333	49
13	I. X. L.	393	10	387	38	29	Boyce.	327	8	287	22
14	Rochester Rose.	392	36	398	3	30	Early White Prize.	322	19	268	24
15	Delaware.	389	17	365	30	31	Early Rose.	320	54	320	54
16	Clay Rose.	388	41	379	52						

Varieties tested for less than five years.	Average yield for less than five years.		Average yield for 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Average yield for 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Enormous (4 years)	420	1	408	19	Early Andes (4 years)	285	28	258	43
Salcan's Elephant (4 years)	405	8	431	42	Prolific Rose (3 years)	356	25	420	47
Canadian Beauty (4 years)	401	13	364	2	Pearce (2 years)	409	32	409	23
Early St. George (4 years)	358	53	348	5	Early Envoy (2 years)	302	57	302	52
Rawdon Rose (4 years)	347	4	338	20	Pingree (2 years)	275	1	308	26

The average crop of the forty-one varieties of potatoes on all the Experimental Farms for 1904 was 374 bus. 18 lbs. per acre.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.
		Bus.	Lbs.				Bus.	Lbs.	
1	Late Puritan.	485	19	343	12	17	Swiss Snowflake	399	31
2	Money Maker.	482	41	418	12	18	Everett.	392	2
3	Burnaby Mammoth.	469	29	462	12	19	American Wonder	387	38
4	Carman No. 1.	459	48	435	36	20	Penn Manor	382	48
5	Dreer's Standard.	458	55	356	24	21	Country Gentleman.	378	24
6	I. X. L.	433	50	365	12	22	Delaware.	368	17
7	Clay Rose.	432	58	391	36	23	Empire State.	362	7
8	Irish Cobbler.	432	5	246	24	24	General Gordon.	352	290
9	American Giant.	418	...	431	12	25	Cambridge Russet.	347	36
10	Uncle Sam.	413	36	312	24	26	Early Rose	345	24
11	Vick's Extra Early.	412	17	378	24	27	Carman No. 3.	344	58
12	Rochester Rose.	409	12	374	48	28	Maule's Thoroughbred.	344	5
13	Rose No. 9.	406	34	382	36	29	Seedling No. 7.	333	46
14	Holborn Abundance.	406	7	435	36	30	Early White Prize.	301	50
15	State of Maine.	404	48	299	12	31	Boyce.	280	43
16	Reeves' Rose.	401	17	404	48				

POTATOES—Continued.

AVERAGE YIELD ON THE CENTRAL EXPERIMENTAL FARM, OTTAWA, ONT.

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Canadian Beauty (4 yrs)...	429	..	365	12	Early Andes (4 yrs).....	201	51	123	12
Sabean's Elephant (4 yrs)...	424	36	365	12	Prolific Rose (3 yrs).....	217	48	272	18
Enormous (4 yrs).....	393	48	308	..	Pearce (2 yrs).....	354	12	374	..
Rawdon Rose (4 yrs).....	360	15	334	24	Early Envoy (2 yrs).....	265	6	246	24
Early St. George (4 yrs)...	309	6	215	36	Pingree (2 yrs).....	163	54	290	24

The average crop of the forty-one varieties of potatoes on the Central Experimental Farm in 1904 was 322 bus. 3 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, NAPPAN, N.S.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.
		Bus.	Lbs.				Bus.	Lbs.	
1 Vick's Extra Early....	440	26	495	..	17 Penn Manor	348	55	352	..
2 Clay Rose	433	50	385	..	18 Boyce	344	5	354	12
3 Seedling No. 7.....	426	48	343	12	19 Maule's Thoroughbred.	344	5	367	24
4 Rose No. 9.	425	29	400	24	20 Uncle Sam.	344	5	363	..
5 Everett.....	416	17	396	..	21 Money Maker	343	24	331	..
6 Rochester Rose.....	406	34	409	12	22 Empire State.....	341	53	363	..
7 Irish Cobbler.....	401	58	439	..	23 Carman No. 3.	340	7	242	..
8 Holborn Abundance...	385	34	297	..	24 State of Maine.....	334	50	398	12
9 Burnaby Mammoth...	381	29	345	24	25 American Giant.....	331	19	319	..
10 Late Puritan.....	364	19	323	24	26 General Gordon.....	329	36	396	..
11 Carman No. 1.....	360	22	462	..	27 Early White Prize....	328	41	341	..
12 Drcer's Standard....	358	36	356	24	28 Country Gentleman...	317	41	418	..
13 Delaware.....	356	24	413	36	29 American Wonder....	309	19	253	..
14 I.X.L.....	354	38	385	..	30 Reeves' Rose.....	298	48	312	24
15 Cambridge Russet....	351	7	334	24	31 Early Rose.....	275	53	299	12
16 Swiss Snowflake....	349	22	314	36					

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Enormous (4 years).....	426	15	252	..	Early Andes (4 years)...	255	54	321	12
Canadian Beauty (4 years)	387	12	332	12	Prolific Rose, (3 years)...	297	..	369	56
Sabean's Elephant (4 years)	330	..	308	..	Pearce (2 years).....	514	48	424	36
Early St. George (4 years)	326	51	391	36	Early Envoy (2 years)...	379	30	352	..
Rawdon Rose (4 years)...	311	33	336	36	Pingree (2 years).....	349	48	374	..

The average crop of the forty one varieties of potatoes on the Experimental Farm at Nappan in 1904 was 360 bus. 16 lbs. per acre.

POTATOES—Continued.

AVERAGE YIELD AT THE EXPERIMENTAL FARM, BRANDON, MAN

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Late Puritan.....	463	50	847	..	17	Carman No. 1.....	407	..	517	..
2	State of Maine.....	459	48	542	40	18	Country Gentleman..	406	16	550	..
3	Delaware.....	458	..	487	40	19	American Giant.....	403	20	553	40
4	Money Maker.....	455	24	634	20	20	Carman No. 3.....	402	36	531	40
5	Seedling No. 7.....	454	40	528	..	21	Reeves' Rose.....	398	56	407	..
6	American Wonder.....	454	40	546	20	22	Holborn Abundance..	396	..	524	20
7	Cambridge Russet..	442	56	500	40	23	Penn Manor.....	368	52	429	..
8	Maule's Thoroughbred.	437	4	568	20	24	Early White Prize...	368	8	264	..
9	Uncle Sam.....	433	24	550	..	25	Swiss Snowflake.....	363	..	462	..
10	Rose No. 9.....	431	56	561	..	26	Clay Rose.....	360	4	458	20
11	Empire State.....	429	28	546	20	27	Everett.....	357	52	366	40
12	I. X. L.....	424	36	405	..	28	Early Rose.....	322	18	282	20
13	Irish Cobbler.....	423	8	530	..	29	Bovee.....	316	48	352	..
14	Dreer's Standard.....	422	56	648	..	30	Rochester Rose.....	316	4	465	40
15	Burnaby Mammoth..	419	28	355	40	31	Vick's Extra Early...	308	44	326	20
16	General Gordon.....	418	..	528	..						
Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.		Average yield for less than five years.		Yield in 1904.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
Enormous (4 years)....		526	10	495	..	Early Andes (4 years)...		297	55	330	..
Sabean's Elephant (4 years)		475	45	605	..	Prolific Rose (3 years)...		503	33	656	20
Canadian Beauty (4 years)		456	30	557	20	Pearce (2 years).....		458	20	509	40
Rawdon Rose (4 years)...		372	10	315	20	Early Envoy (2 years)		293	20	315	20
Early St. George (4 years)		348	20	230	..	Pingree (2 years).....		227	10	341	..

The average crop of the forty-one varieties of potatoes on the Experimental Farm at Brandon in 1904 was 481 bus. 16 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	
		Bus.	Lbs.	Bus.	Lbs.			Bus.	Lbs.	Bus.	Lbs.
1	Carman No. 1.....	504	38	314	36	17	Seedling No. 7.....	422	36	330	..
2	American Giant.....	494	51	391	36	18	I. X. L.....	418	1	239	48
3	American Wonder.....	483	44	345	24	19	Dreer's Standard.....	413	42	352	..
4	Uncle Sam.....	471	27	420	12	20	Everett.....	400	40	312	24
5	Country Gentleman..	460	29	371	48	21	Irish Cobbler.....	397	59	305	48
6	General Gordon.....	456	25	393	48	22	Reeves' Rose.....	396	24	374	..
7	State of Maine.....	453	18	369	36	23	Vick's Extra Early...	380	31	321	12
8	Delaware.....	447	14	323	24	24	Swiss Snowflake.....	380	18	250	36
9	Penn Manor.....	446	39	435	36	25	Maule's Thoroughbred.	366	10	281	36
10	Burnaby Mammoth..	444	27	345	24	26	Money Maker.....	364	18	371	48
11	Rose No. 9.....	443	12	314	36	27	Cambridge Russet..	364	12	226	36
12	Empire State.....	441	50	275	..	28	Clay Rose.....	353	15	237	36
13	Rochester Rose.....	437	49	305	48	29	Bovee.....	351	5	244	24
14	Late Puritan.....	433	2	404	48	30	Early White Prize...	340	16	279	24
15	Holborn Abundance..	429	48	327	48	31	Early Rose.....	322	14	288	12
16	Carman No. 3.....	427	48	343	12						

POTATOES—*Concluded.*

AVERAGE YIELD ON THE EXPERIMENTAL FARM, INDIAN HEAD, N.W.T.—*Con.*

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Sabean's Elephant (4 yrs.)	394	33	409	12	Rawdon Rose (4 yrs.)	294	15	226	36
Canadian Beauty (4 yrs.)	393	4	257	24	Prolific Rose (3 yrs.)	389	33	374	..
Early St. George (4 yrs.)	365	12	631	24	Pingree (2 yrs.)	359	2	360	48
Enormous (4 yrs.)	341	23	314	36	Early Envoy (2 yrs.)	350	14	374	..
Early Andes (4 yrs.)	301	27	228	48	Pearce (2 yrs.)	340	20	323	24

The average crop of the forty-one varieties of potatoes on the Experimental Farm at Indian Head in 1904 was 331 bus. 50 lbs. per acre.

AVERAGE YIELD ON THE EXPERIMENTAL FARM, AGASSIZ, B.C.

Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.	Number.	Varieties tested for five years.	Average yield for five years.		Yield for 1904.		
		Bus.	Lbs.				Bus.	Lbs.		Bus.	Lbs.
1	Uncle Sam.....	421	33	528	..	17	Late Paritan.....	339	19	393	48
2	Rose No. 9.....	399	51	492	48	18	Early Rose.....	338	40	391	36
3	Rochester Rose.....	393	23	435	36	19	American Giant.....	337	5	312	24
4	Swiss Snowflake.....	387	49	409	12	20	State of Maine.....	336	49	402	36
5	Cambridge Russet.....	383	43	435	36	21	I. X. L.....	334	44	453	12
6	Seedling No. 7.....	380	23	448	48	22	General Gordon.....	333	18	422	24
7	Reeves' Rose.....	377	58	422	24	23	Empire State.....	332	34	440	..
8	Country Gentleman.....	376	12	456	30	24	Money Maker.....	329	45	215	36
9	Holborn Abundance.....	366	47	457	36	25	Everett.....	321	56	36	8
10	Clay Rose.....	363	20	426	48	26	Delaware.....	316	11	325	36
11	American Wonder.....	355	46	396	20	27	Maule's Thoroughbred.....	314	43	237	36
12	Dreer's Standard.....	353	19	378	24	28	Penn Manor.....	307	34	376	12
13	Carman No. 1.....	349	38	356	44	29	Carman No. 3.....	288	25	288	12
14	Vick's Extra Early.....	346	38	404	48	30	Irish Cobbler.....	278	53	270	36
15	Bovee.....	342	57	305	48	31	Early White Prize.....	272	38	296	48
16	Burnaby Mammoth.....	339	54	320	52						

Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.		Varieties tested for less than five years.	Average yield for less than five years.		Yield in 1904.	
	Bus.	Lbs.	Bus.	Lbs.		Bus.	Lbs.	Bus.	Lbs.
Early St. George (4 years)	419	40	299	12	Early Andes (4 years)....	330	25	290	24
Enormous (4 years).....	412	30	572	..	Prolific Rose (3 years)....	374	10	431	12
Sabean's Elephant(4 years)	400	25	471	8	Pearce (2 years).....	380	2	415	16
Rawdon Rose (4 years)....	397	6	479	36	Early Envoy (2 years)....	226	36	226	36
Canadian Beauty (4 years)	340	19	308	..	Pingree (1 year).....	176	..	176	..

The average crop of the forty-one varieties of potatoes on the Experimental Farm at Agassiz in 1904 was 376 bus. 40 lbs. per acre.

SUMMARY.

The results obtained from the uniform trial plots as given in this bulletin show that there are marked differences in the relative productiveness of varieties even when grown side by side under similar conditions. The results of the average crops obtained for five years indicate also that the tendency to productiveness is in many instances persistent, manifesting itself under varying conditions of soil and climate to a remarkable degree. The establishment of such facts points to the importance of farmers choosing for seed those varieties which give the heaviest crops, so that farming in Canada may thus be made more profitable.

In this bulletin the arrangement of the matter has been modified so as to present in a more prominent way the average figures of a test of five years, the results of the current year occupying a more subordinate position. The plan adopted in this issue shows at a glance the relative position, in regard to productiveness, of all the varieties which have been under trial for five years.

During the past year the number of varieties under test has been further reduced by dropping some of those which have failed to come up to the high standard required. This reduction in the number tested will serve to give greater prominence to those varieties of the highest excellence.

ANNUAL DISTRIBUTION OF SAMPLES OF SEED GRAIN.

Provision has been made in connection with the annual distribution of samples for the improvement of seed to have available considerable quantities of the very best and most productive sorts, so that every farmer in Canada who applies in good season (before March 1) may obtain a sample of such sort as he may desire; but only one sort can be sent to each applicant. These samples are sent free by mail, in cotton bags, the spring wheat and barley in quantities of 5 lbs. each and oats in bags containing 4 lbs. each, enough in each case to sow one-twentieth of an acre. Instructions accompany each sample. In many instances the 5-lb. samples of wheat and barley have, when properly cared for, produced, by the end of the third season, from 100 to 200 bushels of grain, while in the case of oats such quantities have been available by the end of the second season, showing that with proper attention any farmer, under this liberal provision, may soon provide himself with the best and most productive strains of seed in sufficient quantities to sow a large area, at no cost to himself beyond his own labour.

That the farmers of this country avail themselves of this liberal arrangement is evident from the fact that the number of samples now supplied to individual applicants amounts to from 35,000 to 40,000 each year, and the demand is increasing. A steady improvement is taking place in the quality of the cereals produced in this country as well as a large increase in the output, results which are believed to be in large measure due to the more general cultivation of improved and more productive sorts brought about by these annual distributions.